

May 20-July 17 -1929

W. J. Morse

Japan, 1929.

U. S. American Consulate.
Tokyo, Japan.

Mame Shinkui ga

Bean

into

Moto

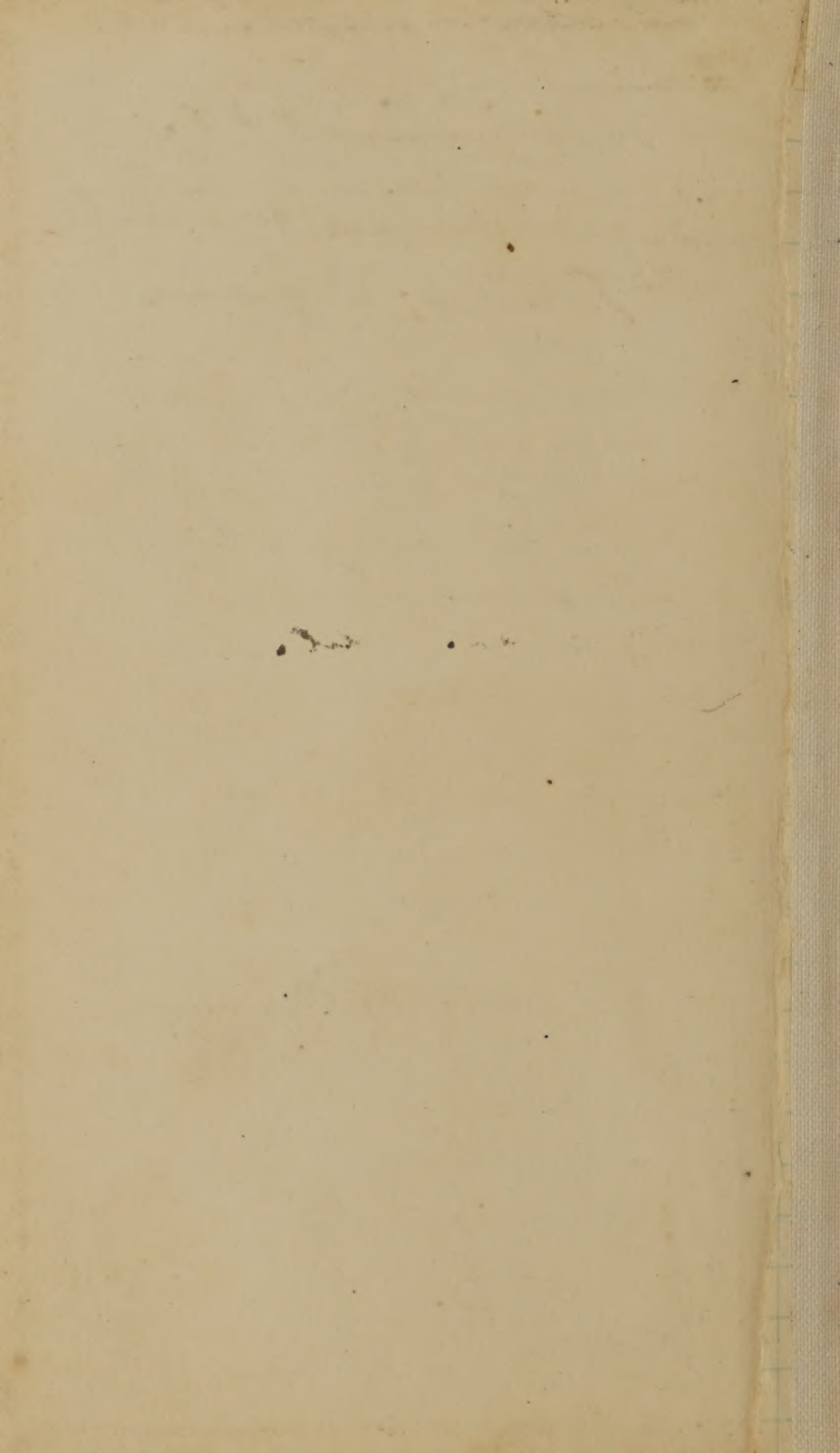
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akita. Japan

435
135

2275
1365
455

61425



Monday - May 20. 1929

obtained 400 Yen from bank
and 100 Yen from hotel. Arranged
for transportation and berths
through Japanese Tourist Bureau
in the Arcade of the Imperial Hotel
Transportation Cost.

Utsuro Sta. Tokyo to Sapporo, Japan-Jap. Govt Ry) self (Ry. ticket)	21.62
Utsuro Sta. Tokyo to Sapporo Japan-J. G. R. (interpreter) Ry Ticket	21.62
Utsuro Sta. Tokyo to Aomori. Japan Express ticket (self)	2.00
Utsuro Sta. Tokyo to Aomori. Jap. Exp. ticket. interpreter	2.00
Hakodate-Sapporo. Jap. Exp. ticket. (self)	1.30
Hakodate-Sapporo. Jap. Exp. ticket. interpreter	1.30
Sleeper ticket - ^{upper} berth. J. G. Ry.	
Utsuro-Aomori. Japan. self.	3.00
Sleeper ticket - ^{upper} berth - J. G. Ry	
Utsuro-Aomori. Japan - Intersp.	3.00
Sleeper-Hakodate-Sapporo, Japan. self.	
Sleeper-Hakodate-Sapporo. Japan, interpreter	

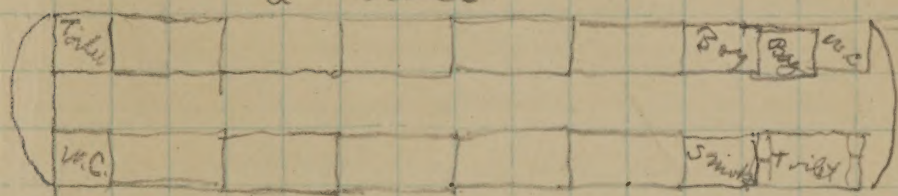
Tuesday, May 21, 1929.

Cloudy and warm. In the morning went to Consulate for mail. Recd. a letter from mother. Went to office and took motion picture in children's playground of school children. At the office arranged material for Hokkaido trip. Had lunch at Japanese Inn and in afternoon went to hotel to arrange room. Packed up our stuff in suitcases and trunk. At supper bar saw young Margaret two club sandwiches for lunch on our trip.

Paid hotel bill up to time we left and arranged for storage of trunk during our absence.

At 9.30 left by taxi () for Keno station where we left at 10.30 for Sapporo. Our first introduction to Japanese sleepers which are quite different from sleepers in America. We had two sections, 2 uppers and two lowers. The seats are arranged lengthwise and there is no room under seats for baggage under seats. The baggage

is just in small rooms near
end of car under care of the porter,
2nd Class.



The seats are narrower than sleepers
at home. There is much less privacy
than the U.S. sleepers as it seems
the custom to undress and dress in
the aisles.

Wednesday, May 22, 1929.

Awoke about 5:00 A.M. and enjoyed scenery along the way. Noted along railway, hillsides, and all about beautiful wild azaleas. We were passing through extensive rice and mulberry section. In some sections the fields were in rectangular form about one-tenth acre in size and looked very neat and attractive. The scenery was very beautiful. The farmers were at work in the fields. In some cases women with children tied to their backs were working along in the field with the men.

About 7:20 A.M. we all went in to the diner for breakfast. The diner was much like our own diners. We had a regular breakfast which cost 90 sen and was as follows.

- Toast and butter
- Clatmeal and milk
- Ham and eggs
- Fruit (apples and bananas)
- Coffee and tea.

We found it an excellent breakfast

and much more reasonable than anything we could get in U. S. diners.

Many beautiful mistarins were noted along the way and in some cases extended to the tops of trees and spread over quite a distance. Many pear orchards were noted being trained on arbors. Some of these orchards were quite fair size and were just coming in flower. A few small peach orchards were noted scattered here and there. Considerable areas of bamboo were noted on the hillsides along with the Japanese cedars. Some groves of black bamboo were noted. In the rice paddy sections small paddies of cyperus sp. were noted which is used for matting.

The train stopped at Ichinoseki and Mr. Sanyake went on the platform and purchased two boxes of sweet soy bean paste at 20 sen each. This product is very good. This village is said to be the

center of production of a large number of soybean products. It is in Iwate-ken (Prefecture) which is 2nd or 3rd in soybean acreage and production. There is also an agricultural college here. Just a short distance, fields, some of them quite extensive of Chinese cabbage in full bloom. These fields were noted for a distance of several miles. These fields are grown for the seed which is pressed for the oil. Many orchards were noted along the way which were pear orchards, the trees had been pruned quite heavily. In the region of Hamanaki is quite a horse raising region. About 15 min. from Morioka we saw small patches or orchards of persimmons. Shortly after leaving Morioka we passed through rather a mountainous section devoid of farming except for occasional valley pockets in which there were some rice paddies. This region continued for many miles and but a few deer were seen but many mountain cherries were

observed. In the mountainous region there was more or less lumbering operations and many lumber rafts were noted floating down streams. The mountainous region gave way to more or less hilly country and more or less farming, rice, barley, wheat, apples, peaches, and persimmons. This led about 12.15 to a very attractive is planted in soybeans and adzuki beans, it is evident from the appearance of the fields that the beans were but recently planted. The beans were planted in rows on ridges about 18 in apart, and evidently the (rows) ground was stepped upon after the beans were planted. Men and women were noted planting the beans in several cases. In these mountain and hilly sections not many azaleas were noted. On the highest mountains the tops and sides well down are covered with snow. Since about 10 P. M. we have noted farag homes all along the way which had

Thick plantings of iris along
the ridge of the thick grass
roofs. About 12.30 dinner
we began passing through a
section where we saw large
plantings of persimmons, and
this continued for about $\frac{1}{2}$ hour.

About 12.20 we went in the
diner for lunch where we had the
regular affair at 1.20¢ a piece.
The menu was written in French
and Japanese and as follows.

Bread and butter.

Fish cake with tomato sauce

Baked cucumber stuffed with meat
Cold roast beef & potato salad.

Fruit Cakes & Bananas.

Coffee or Tea.

About 1 we came to a section
growing mulberry trees in
orchards. Since early morning
we have seen mulberry plantings
all along.

We entered the Aomori district
about 1.40 P.M. and began
seeing extensive plantings of
apples and peaches in the valleys
and on the hill sides. These

orchards are now in full
bloom and looked very beautiful.
More or less large persimmon
trees have been noted since
we entered the Aomori district.
Now apples and peaches have
been noted than in any of the
regions passed through today.
As we pass along (2.00) there seems
to be quite a few large persimmons.

About 2 hours from Aomori we
came to quite a stock country,
mostly horses however. About the
only cultivated crop is rice
which is all the valleys and
hill land. Along the railway
embankments. Sides of the valleys
was noticed growing wild
short bamboo in noticed in
abundance. Several large single
cherries in full bloom were
noted along a roadside.

Porter fee _____ 50 sen

Arrived at Aomori, Japan at
5.27 P.M. Paid porter for carrying
luggage to boat. Sen.
Walked about station for awhile.
A police officer asked our

interpreter, Mr. Sanyetake, who
was here. He explained to him
who we were and our business.
I also gave him one of my
business cards and he appeared
to be satisfied with us, at the
stands in the stations they
had a number of soy bean and
adzuki bean pastes, and
also a number of different
kinds of pastes or jelly made
from apples and grapes put
up in attractive packages. We
bought a package of apple paste
and adzuki bean paste, both
of which were very good. On
our way back we are planning
to purchase some of the
bean products. As the boat
left at 5.30 P. M. we went
aboard and obtained cushions
and pillows (made of buckwheat
hulls and rice chaff) and
secured space in the 1 and 2nd
class quarters. There were sort
of raised platforms on which the
cushions (2 to a person) were
placed and you had to remove

your shoes before getting on
one. We were the only foreigners
aboard, the Japanese were
arranging their cushions
and pillows for a nap during
the five hour passage from
Rosario to Hakodate. The boat
which is a ferry and carries
trains was a most excellent
one having all up-to-date
accommodations and very clean.
After the boat started we
went to the dining room
which was very nice for our
supper. We took their
regular dinner which was
110 yen and as follows
Soup (broth with egg).

- 1) Bread & butter
- 2) Broiled salmon
- 3) Slice of cold tongue with tomato sauce
and slice of cold roast beef with
to browned potatoes.
- 4) Slice of sponge cake
- 5) Apple
- 6) Coffee or Tea.

After supper we walked
about the boat. It was quite

cold. The mountains on each side of the bay had snow on the sides and summit. Edna and Margaret had a sleep for about 2 hours. The passage was quite smooth. We arrived at Hakodate at 10.00 P. M. and went to our sleeper, which left at 11. P. M.

The train at Aomori went in the shed at the boat wharf so it was all under cover from train to boat and only about 3 minutes walk.

We arrived at Hakodate on time and found our train in the same station. A porter took all of our baggage direct to our berths. The sleeper was crowded and we found the berths somewhat narrower than of the sleeper the night before. We all managed to sleep better than the night before.

Thursday - May 23, 1929,

Awoke about six in the morning and after dressing looked out to see the country we were passing through. At first the scenery reminded one of New England conditions. The farming land about seven o'clock was hilly and mountainous, snow on the sides and tops of the mountains. Small patches of jonquils and tulips were in bloom and occasionally one noticed wild cherry trees in bloom. The hills sloping were in cultivation and from the appearance of the soil had been planted to potatoes in hills. As we passed along about 8.00 we passed along the shore of the Japan Sea and all long were fisherman's huts, boats, nets, and fish (herring) drying on poles. We saw more or less marsh land and we finally came to an extensive rice area in which the land was just being plowed. The first silo we have seen in Japan was noted and we

saw at least six before reaching Sapporo. We saw rather extensive patches of mountain cherries and in two instances saw the entire mountain side covered with the cherries in full bloom. More dairy cows were observed than all we have seen together before. All were of the Holstein breed and were excellent stock. All the farming was being carried on in a more extensive scale than anywhere else noted in Japan.

We went through Otaru which is said to be quite a commercial center and quite a center for soybean products and soybean trade. We arrived at Sapporo at 7:45 A.M. which has quite a nice railroad station. Mr. Sanyatake arranged for the transfer of our baggage to ourselves to Hotel Yamagataya.

Taxi station to hotel \$ 1.00
Transfer baggage to hotel — \$.50

After arriving at the hotel Mr. Sanyatake arranged with

manager as to rooms. We obtained a room, Japanese style, for three of us at 12.50 yen per day which included breakfast and supper. Baths ordered in the American style are extra - 40 sen each person, and the mesan should be notified 20 minutes before the bath is to be ready. The Japanese baths are free to guests and may be taken at any time. Mr. Sugatake took a room at 5. yen per day which included two meals.

We were given a room and cushions were given us. Soon after being seated, a round lacquer box of very pretty and very good cakes were brought in as a greeting from the Inn. In a few minutes, the mesan brought in our breakfast which consisted of for each - two apples, two fried eggs and a piece of ham, small bottle of hot milk, cup of coffee, three large pieces of toast, very good butter, and sugar for coffee.

We had to leave our shoes at the entrance and put on zori, and these had to be taken off before going into our room. We found thick kimono for each of us to wear about the room and bath kimono to wear to the bath room. The floor of the room is covered with matting - no chairs and only a low writing table and another low table.

Mr. Sugitake went to the Ag. Dept. of the Railroad and Chamber of Commerce for information on agriculture in Japan. In the afternoon we went out to a park to see cherry blossoms and the Chamber of Commerce exhibit of Hokkaido industries and agricultural products. The building was in a park and there were said to be cherries but we found the cherries were in another park. We also found the exhibit hall closed for the day. We walked around this park which is quite beautiful and then decided to go the other

park. Here we found that they celebrated cherry blossom time the same as Tokyo. We found the cherry blossoms about gone but could see that it must have been very beautiful when the cherries were in full bloom. There were temporary stands, tea rooms and vendor stands of all kinds, sake stands predominating. A long walk leading to a beautiful shrine was lined on both sides with cherries and must have been a very beautiful sight. The leaves were too far out and the cherry blossoms too far gone to get any interesting pictures. Tonight was the last night of illumination for cherry blossom time.

We went back to the club where we were served a Japanese dinner in our room, Mr. Sawayake having dinner with us. It was our first real

Japanese dinner and
was much enjoyed. It
was as follows and served
on two trays.
Raw fish - two kinds
Pickled sardines
Roasted flounder
Miso soup - with bamboo
Vegetable soup - with fish sausage
and mushrooms.
Cabbage salad.
Fresh sliced pears.
Warm milk
Rice
Small dish of soy sauce to dip
the raw fish in.
Tea.

The mesan who brought in
our dinner sat near us
and filled our rice bowls
as we emptied them and
served the tea.

Shortly after supper two
mesans prepared our beds on
the floor. They placed what
looked like two heavy

comforts on the floor for each. On the top was placed a linen sheet or spread & then a white sheet. On this was placed a heavy comfort. These were our beds for the night. We were given real pillows from the spring bed rooms as they had no foreign guests except us and we preferred Japanese style of sleeping. Just before retiring the meson brought in a tea pot of hot water and placed on the tabachi and a tea pot of cold drinking water.

The heavy quilts for the bed are called futon and used on top of the sheet.

Sapporo, Japan. ^{Friday} 3/24/29.

We all slept through very good on our Japanese beds. Soon after arising the resan placed fresh charcoal on the hobachi and our room became warm in a short time.

I had my first Japanese bath, the bath was public. We first donned our two kimonos then went to the outer bath room which is used for both men and women. After taking off our clothes we went in the bath room. The bath boy had a little tub and began throwing very hot water over my legs and feet and up to the waist. Then I got into the large tub which seemed to be scalding hot. The bath water was up over the middle. The bath boy motioned for me to get down and soak. So I soaked for about five minutes, and then he told me get out and sit on a

small stool. With a little
brush he scrubbed my
back and massaged me
good, and then threw a
few more buckets of hot
water over me, and then
washed the rest of me
myself, and then dried
my shoes, washed and
went to the room.

For breakfast we were
served

Apples and bananas

Fried eggs on toast.

Toast

Kamashi

Coffee.

As it had rained hard
during the night and was
still raining when we had
breakfast we postponed our
trip to the Expo. Stn. which
is about 7 miles from Sapporo
and has to be reached by train.
About 10 the rain stopped
so we went to the Botanic
Garden of the Imperial University
and also visited the Museum.
A small bee (5 sen) is

charged for admission. We
first went thru the museum
which though small contains
good collections of animals,
fish, birds, bugs, butterflies,
minerals, and an excellent
exhibit of "Aimn relics".

We then went around the
garden grounds and saw
an excellent collection of
flowering plants and trees.
Many cherries in full
bloom were found in quite
pretty settings and good
enough for pictures. We
found things of such interest
that we decided to obtain
permission to collect
specimens.

After lunch we visited
the College and met Dr. Otto
to whom I had a car from
Mr. Beattie. We found that he
had charge of the Botanic
garden and would go with
us to collect whatever plants
we desired. We went to
the gardens where it took

100 feet of more of the
cherry trees.

We then went around to
collect specimens of various
plants we had noted in our
morning visit. These things
which seemed of promise
are as follows -

Aquilegia akimensis, which
grows wild in the high mtn
regions of Hokkaido, I. & has
a large blue flower and the
center is blue except about
one half which is yellow. It
is worthy of cultivation.

Iris tectorum, which is
about 8 in. high and a very
beautiful blue. Would make
an excellent bedding iris
and for small pot use.

Other plants collected were

The following Lilies were noted

L. Hansonii	L. Henryi
L. melecolides	L. speciosum
L. tigrinum	
L. deliricum	

Two Fritillarias were noted one yellow (F. pallidifolia) yellow flowers and F. cannockensis - purple flowers. An effort should be made to obtain these.

On our way to the Sun we stopped at a seed house and bought seed of three varieties of Vicia faba and seven varieties of soybeans.

10 lbs - @ 15 sen each \$ 1.50

at another seed house we bought 2 paks of soybeans @ 15 sen each. 30

We then went to the Sun where dinner was served in our room by the Nesan. We had a Japanese dinner and were served.

Miso soup with other

Vegetable soup with fried celery and mushrooms.

Beefsteak with fried onions
Fried salmon with sauce
Dried raw herring.
Cabbage salad.
Pickled small shrimp.
Rice
Tea
Two small slices of excellent
watermelon from Furusawa

After supper we went for a walk
to the main business street which in
a way was like the Ginza in Tokyo.
The street was crowded and on both
sides were stores selling everything
one could think of. We stopped at
an ice cream parlor in front of
which they were making ice cream
in a large freezer. We were served
small dishes of excellent vanilla
ice cream at 15 sen a dish.

We stopped at a photograph
shop and bought some post cards
of scenes in Hokkaido. Mr. Inyutake
found that lilies of the valley grow
wild very abundantly in many
places in Hokkaido and that
they were especially abundant

around Hakodate. They come in
flower from May 31 to June 31. Near
Hakodate there is a Trappist
monastery and we were told that
they have a purple lily of the valley
there. The Trappists (French) are
doing extensive agricultural work
and we are planning to spend a
day there.

We returned to the Inn about
9.30 and found that the messrs
had prepared our beds.

Fritillaria camtschatensis, Gowl.
(Wild Black lily.)

Corydalis ambigua - a blue flowered
plant growing wild and abundantly
in Botanic Garden grounds in the
woods.

Sapporo, Japan. ^{Sat.} May 25, 1929.

Arose at 7.30 A.M. and took a Japanese bath with Mr. Sugitake. We then had breakfast of ham & eggs, toast, hot milk, butter, coffee, and large russet pears which were quite juicy and good.

About 10 A.M. we went out to the Hokkaido Imperial University to see Dr. Ito, who advised us he would obtain seed of *Aquilegia akimensis* the large blue flowered *Aquilegia* which grows wild in the high mts. of Hokkaido. The seed is very hard to get but Dr. Ito said he could get us some later and would send it to us later at Tokyo. Go the American Consulate. He said he also would send us seed of *Fritillaria camtschaticensis* - the wild black lily which grows wild in Hokkaido. In the fall he said he would also send us bulbs of this lily.

We next visited the Natto Laboratory of which Dr. Hanizawa is in charge. He was absent so his assistant took us in charge, gave us bulletins and showed us samples. He died

Bean natto is called *Hannanatto*.
There are two kinds of Natto - one from
the soy bean milk which is soured by
lactic acid and the second one from
using *Bacillus Natto* in the
the Natto originated with Buddhist
priest who eat no animal proteins
or fish. A priest tried soaking the beans
and the bacterial action gave a pleasant
odor.

1- *Hannanatto*.

2- *String Natto*.

Hannanatto can be kept 2 years.

^{or string Natto}
The beans are first soaked and then
cooked. The beans cooked are spread
out on trays in dark room and
put on the bacteria *Bacillus Natto*.

*Natto*kin (liquid - pure culture) will
keep until used. 1 small bottle will do
for 3 kilograms of beans. 2nd size
bottle for 5 lbs - 3rd size for 15 bushels of
seed. The above were given us.

Dr. Tazawa came about 11 A.M.
and we went through the laboratory
and were shown the process of
making Natto. Only ^{string} *Hannanatto*
is made here. The beans are first
soaked for 24 hours and then

Boiled until soft. The beans are then placed about one inch deep in small trays and the Natto culture thoroughly distributed over the beans. The trays are then placed in the fermenting cellar which is kept at a temperature of 40°C and moisture 43% . After 4 hours the bacteria began to work and in about 15 hours the Natto is ready to eat and put on the market. This form of Natto is good for only 3 or 4 days in the summer but in the winter for 3 or 4 weeks. It is very digestible and a highly nutritious protein food.

After our college visit we stopped at a small cedar nurseryman to see what he had. We found that he specialized in lilies and was growing himself at a place about 2 miles from Saginaw about 20 species and could obtain in all about 35 or 40 species. He said he could obtain some bulbs for us but we later found he

thought we wanted them just
for Tokyo. We asked him to get
12 of each of all the lilies he could
most of which represent wild
lilies growing in Hokkaido.

Later in the afternoon we
visited the Yamato Seed Co. and
purchased sample of hardy
oriental alfalfa, soy beans and
garden beans.

10 samples at 20 yen each. 2,000 yen

We also found that they could
get lilies for us and would
make a collection this fall. We
met Mr. Yano, who speaks
English very well and was in
the seed business in California
for many years and is in the foreign
department of the Yamato Co.,

Sunday, May 28, 1929

Clear and cool in the morning and quite windy. In the morning went to the Hokkaido Exp. Sta. at Kotoni, Sapporo, Japan. We got off the train at Kotoni and after 5 min. walk reached the station where we met Dr. Takatsugu Abiko chief of the Agronomy and Horticultural sections. He explained to us the different soybean sections and advised that the most soybean work was being carried on at the Tokachi station. He took us to the exhibit hall and showed us samples of the varieties of soybeans most generally grown in Hokkaido. Two samples of yellow beans developed by the station were the finest and largest yellow soybeans I ever saw. This station is carrying on some soybean work, about 40 varieties and selections. The beans had been planted and were just breaking through the soil.

We were shown the varieties and selections being grown at the northern station, Tokachi, which numbered about 260.

Among these were three smooth varieties, two of which were early and were said to be more resistant to attack of the bean moth than the heavy varieties. Dr. Abiko advised me that they would be glad to give me samples of all the varieties of soybeans they had from this year's harvest.

The principal insect enemy of the soybean in Hokkaido is the "Mame Shinkeniga" (Moth into bean), a moth, *Laspeyresia* (*grapholitha*) *glycinivorella*, Matsumura. It is a small moth the larva of which eat into the mature soybean. In general it injures the crop in Hokkaido about 10%. The early plantings are injured about 40% while the latest planting only about 10%. We were given a bulletin on this.

The principal soybean diseases are a leafspot - *Peronospora manshurica* and a mosaic - *Heterodera Schachtii*, which are most injurious to this crop.

The soybeans grown in Hokkaido

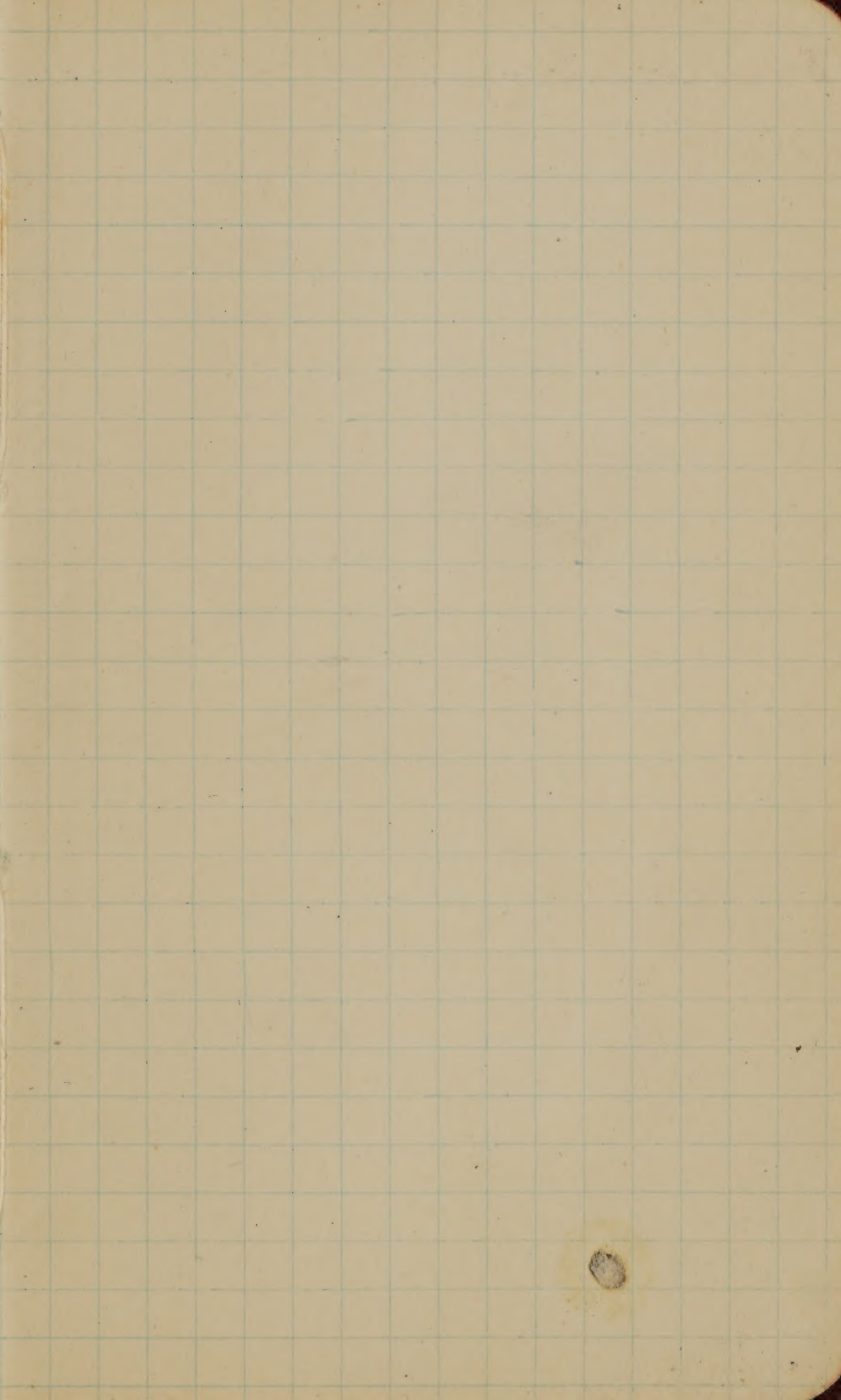
are used entirely for food being used in Hokkaido and exported to the main island.

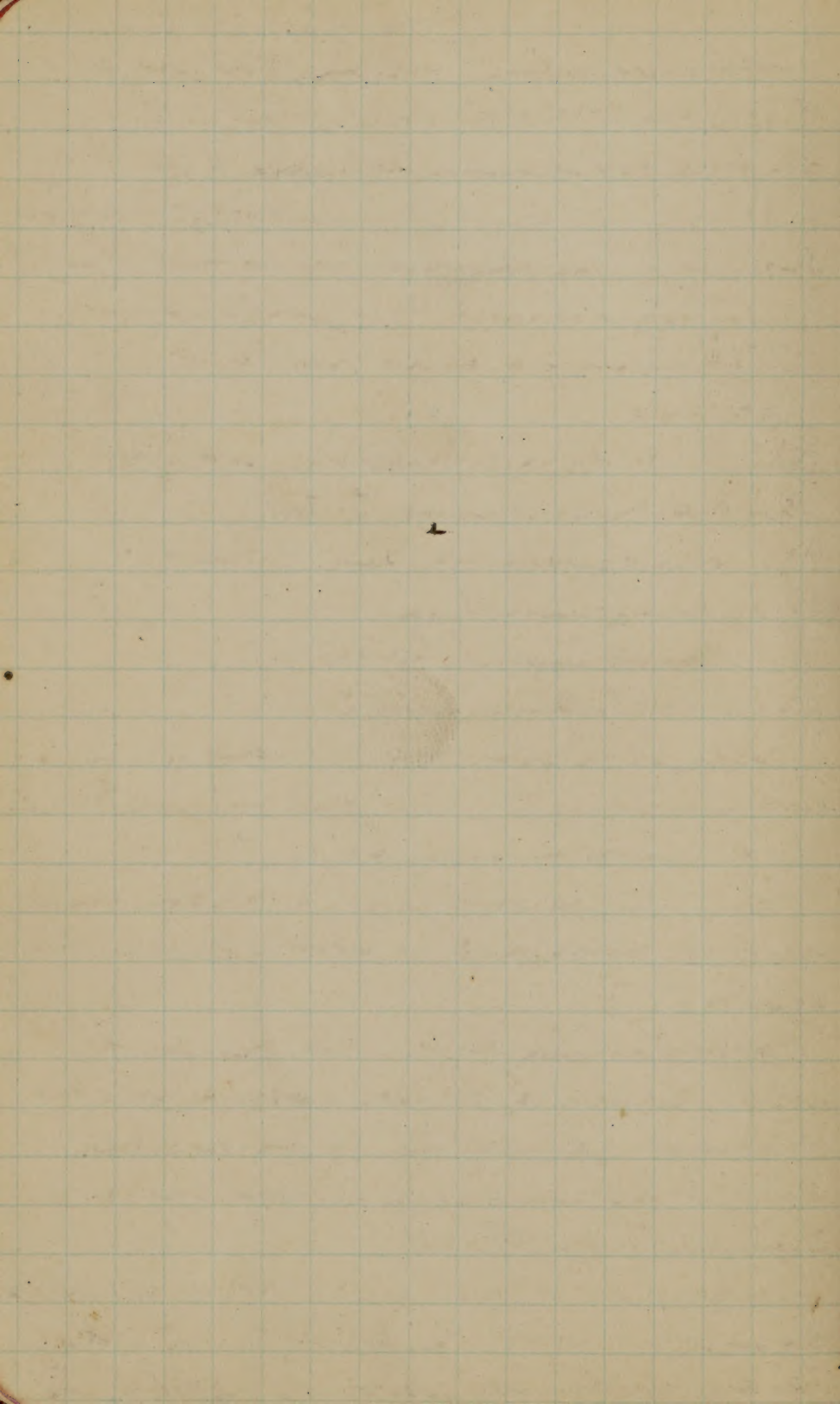
We were shown an excellent exhibit of soybean food products. There was puffed soybeans like puffed rice. Other products were miso, Natto, soy sauce, dried bean curd, and many others.

There was an exhibit of flax showing 6 varieties, one brought from the U.S. many years ago and one from Russia. The other four were improved varieties developed by the Flax Station at _____, About 16,000 acres of flax are being grown in Hokkaido. Considerable experimental work on flax is being done at this (Kotoni) station. Many small plots about 3 ft. square were given to small breeding work.

About 50 varieties of soybeans were being grown in rows about 18 in. apart. All of these varieties were being grown as vegetable

Bean varieties.





Monday, May 27, 1929,

After breakfast we went to see Dr. Ito of the Hokkaido Imperial Coll. re to *Rhododendron Albrechti* and also a commercial soybean sauce factory in Sapporo. He advised that he had this species in the Botanic garden and the following species grew wild in Hokkaido.

Rhododendron Albrechti, Maxim.

Rh. Trachycarpum, G. Don.

Rh. chrysanthum, Pall - alpine.

Rh. lauricum, L.

Rh. Kaempferi, Planch.

Rh. Kamtschaticum, Pall.

We were shown a bulletin of the flora of Yezo (Hokkaido) which should be valuable in our work. The author - Kudo, is now in Formosa and we were advised to write him for copies.

According to Dr. Ito the wild persimmon does not occur in the Hokkaido Island and neither does the Manchurian Bush Cherry, *Cornus tomentosa*.

Kudzu, *Pueraria Thunbergiana*, grows to a considerable extent but only in the southern part of the island.

It does not grow in Sagaklein Island
Vegetation of Yezo. by Y. Kudo.
Japanese Journal of Botany. Vol. 11. No. 4,
Tokyo. 1925.

Dr. Ito made arrangements to visit
a large soy sauce factory in the P.M.
Meanwhile we went to the Botanic
Garden on a permit given us by Dr.
Ito to see *Rhododendron Albrechtii*.
We found it to be a shrub about
10 feet high and in full flower. It
is a very beautiful shrub and has
an excellent shade of deep pink.
Pictures were taken and botanical
specimens of the shrub. We have
found that we can obtain seed and
plants of this species later on.

We looked over the flowering plants
again and Margaret found a purple
lily of the valley of which we had heard
and were going to look out for near
Hakodate. The assistant director of the
Garden came about 1 p.m. and
said the purple lily of the valley is
a German species. He also showed
us a double flowering lily of the
valley and the wild species which
grows in Hokkaido. We were

given species of the three cities
of the valley to take back with us.

We were informed that Dr. Ito
was awaiting us to take us to
the soy sauce place. We went
in an auto to the outskirts of the
city where we found a plant
covering several acres and
were welcomed by the manager
a former student of Dr. Ito.

We were first shown the large bldgs.
where the fermenting vats were. The
storage room for wheat and beans were
on the ground floor of one of the large
buildings and the cleaning machinery
was here and elevators for carrying
the beans and wheat to other rooms.
Several hundred bushels of wheat
and beans were stored. The beans
were a mixture of yellow seeded
varieties grown in Hokkaido and
the wheat also consisted of a
mixture of varieties grown in
Hokkaido.

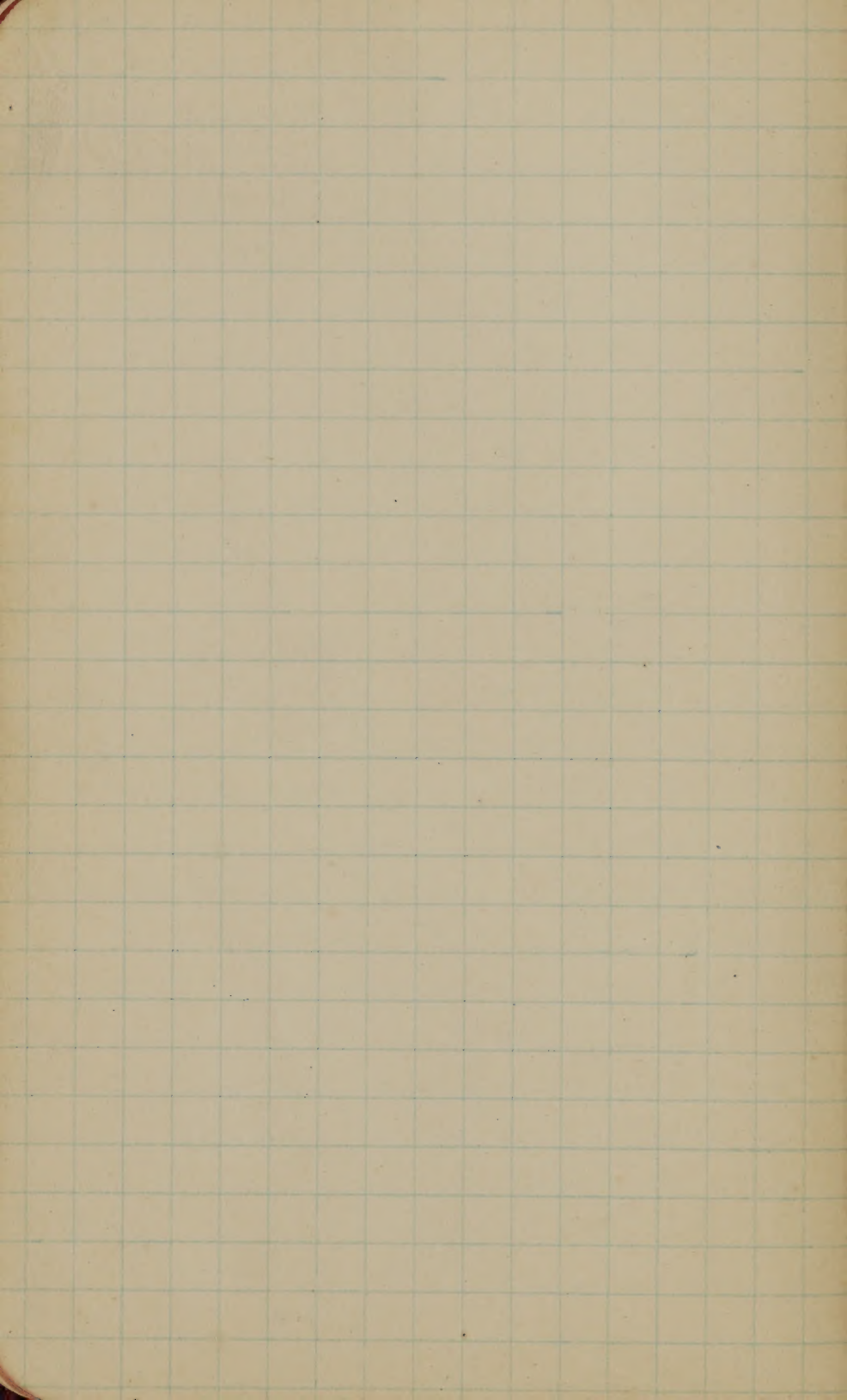
After cleaning the beans were taken
to a large vat and washed and then
cooked in large steam pressure
cookers. The wheat was put in an
automatic roaster. The wheat and

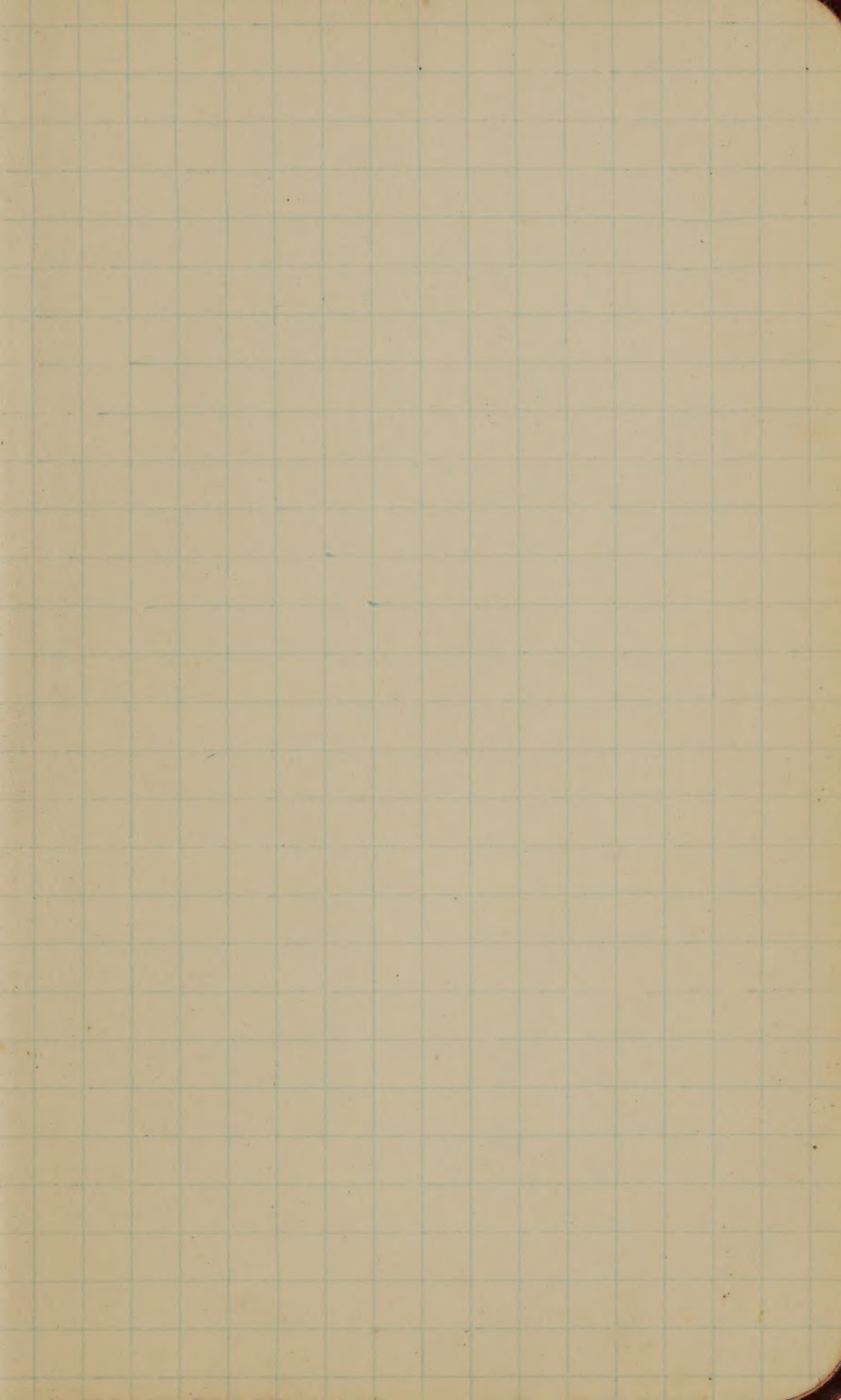
beans are mixed in equal quantities, and salt water added. We were shown the rooms where the beans and wheat were placed in small trays for the bacteria *Aspergillus oryzae* to act upon. In the large vat rooms I counted sixty vats in different stages of fermentation. One vat was being emptied and carried to press room where the material was placed in small sacks and the liquid pressed out by hydraulic presses. The liquid was piped to vats where it was boiled and then piped to large casks from which it was drawn in small casks. The mash is allowed to cure in the large vats for 1 1/2 years. Motion pictures were taken in the press room and the filling room. In the other places showing different processes it was too dark for pictures.

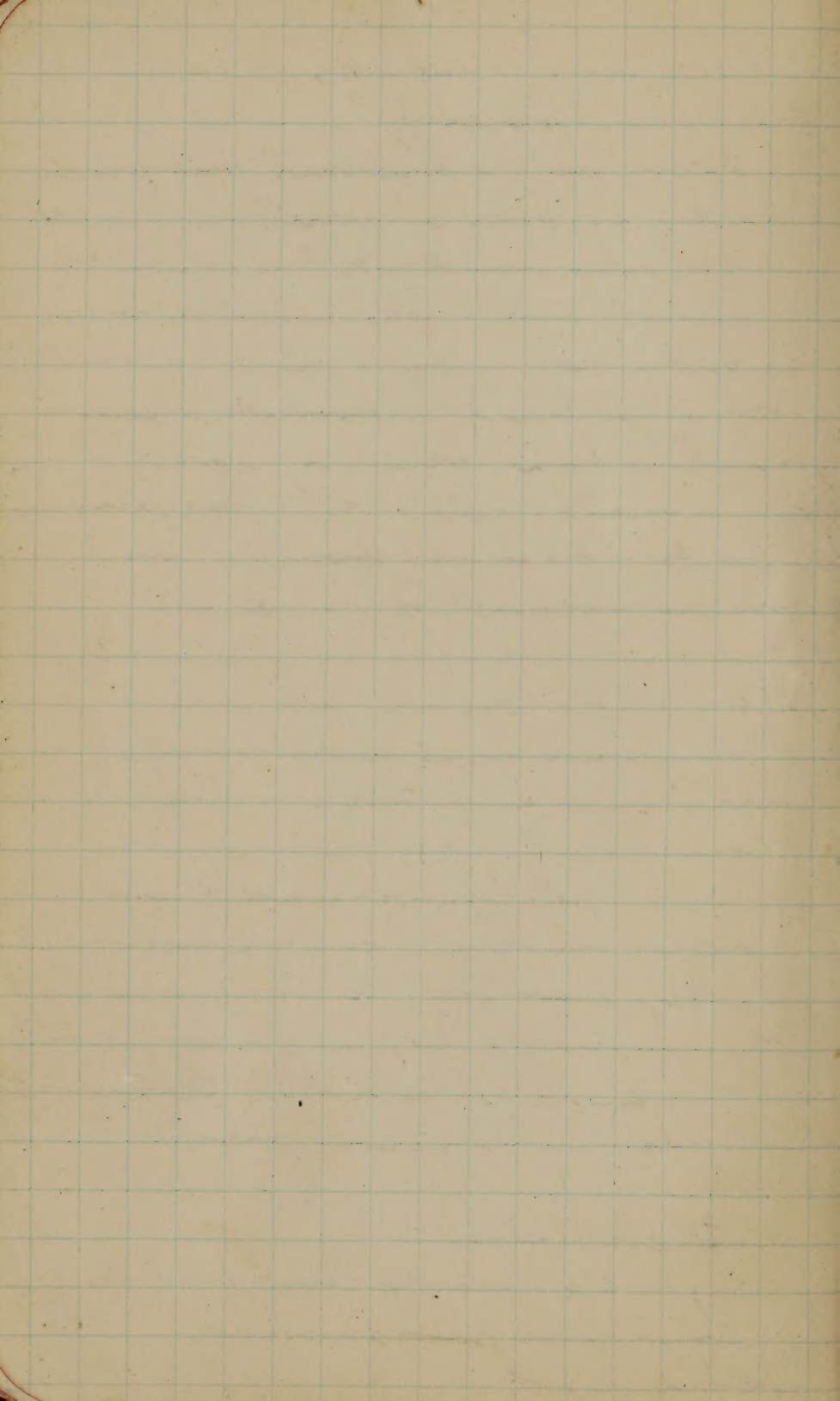
After our visit through the factory the manager took us to a private room and presented each of us with a set of post cards of the factory. We were first served a cup of barley tea, then cake, candy, and chocolate cakes, next a cup of tea and then navel oranges. Mr. Forgetake found out for me information concerning the soy

sauce business, the mash from which the soy sauce is pressed out is sold as cattle feed and hog feed. The manager was interested in possible sources of export to the U.S. of soy sauce. We were rather interested in the mash press cake which had a slightly salty taste and might be valuable as a cattle food. None of the sauce was put up in bottles. All wooden casks were used, the smallest holding about 5 gallons.

In the vat room, the mash is not stirred by long bamboo paddles any more. Air pressure is used, being forced up from the bottom of the tubs or vats. No cement vats or tubs were used, all being made of wood.







Tuesday, May 28, 1929.

Sapporo, Japan.

Went to the market this morn about 5.30. This market opens at 4 A.M. and about all the business is over by 7 A.M. The market is on the outer edge of town and is mostly a farmers' market though a few vendors have stands selling Chinaware, getas, etc. The farmers were for the most women and selling all sorts of products.

Flowers, tulips, narcissus, etc.

Flowering plants - all sorts of domestic and wild plants

Evergreens and trees - small in pots

Bamboo shoots - small quite different from the bamboo in Tokyo District. Sample purchased
Ginger - lighter color and larger than that in Tokyo District. Purchased

Potatoes - two kinds - white

Udo -

Water chestnut

Lily bulbs - edible - two kinds

Sample purchased

Lotus root.

Celery - forced -
Onions - Green - mature
Radishes - not as large as in Tokyo
Various kinds of greens.
Bata - Salad plant
Garms -

Three or four vendors had many plants of *Aquilegia akitsensis* which grows wild in the mountains and which Dr. Ito said is very hard to obtain. A small bundle of these plants were obtained for the seed and roots.

After breakfast we started on a hunt for other seedmen. At two stores we obtained seed of two varieties of soy beans and seed of mixed *Aquilegia* native to Hokkaido. We also obtained several other varieties of euphemia at other stores, and one each of mixed *Aquilegia* and a large, nearly round black variety of string beans. At one seed store (Aizawa) we found that they handle many varieties and species of lilies. All of the stores handled lilies native to Hokkaido. But at the

present time have no bulbs but
will have plenty available in the
fall. At the Higuma store we found
varieties that we did not find
at other places. From our survey
of lilies growing wild in Hokkaido
and under cultivation there must
be from 60 to 75 species and varieties.
One small nurseryman had 20 species
and varieties growing and can
obtain for us at least 20-25 more.

After our visit to seedmen we
visited one of the large department
stores and found that they handled
a large assortment of soy bean
products. One tin of assorted sugared
soybeans (1 lb) and a tin of green
sugared soybeans with seeds (80 sen)
were purchased. They also had
mattobans, and other bean and
pea products either in roasted or
roasted and sugar forms.

The roof garden of this store was
very unique. It was partly a
play ground for children and bird
and animal store. A small green-
house was to one side and all sorts
of plants and flowers were on sale.
There were also canaries and

Birds of other kinds. There was also a small zoo with monkeys, a bear, foxes, rabbits, kangaroos, kankas, cranes, heron, etc. About the roof garden was arranged a small stream in rock landscape work. They were also selling singing insects in small cages made of some sort of rush or grass. The cages were in the form of pagodas, houses, and boats. This store also handles carved wood work by the Ainu and also bought chopsticks, boat tooth pick holder, two wooden plates and Ainu ware.

Mr. [] of the foreign department of the Yamato Seed Co. called and assured us he would be glad to help us in any way to obtain and send plants that we desired to send back to our country. He company can obtain plants of Rhododendron Albrechtii which Ben Morrison desired seed and plants of.

Mr. Suyatake went to the station and purchased tickets for our return to Itoya Sta. Tokyo. We have the privilege of 3 stopovers on our way back, as we return by Day

There are no express charges.

Tare - 2nd Class

1 -	Sapporo to Hono. 5th T. Days	\$ 21.62
2 -	" " " " " "	21.62
3 -	" " " " " "	21.62
4 -	" " " " " " 1/2 box	10.81

We also arranged to pay our hotel bill and it was presented to us at eight

1 - room - Edna - Margaret self
at \$5.5 for two and \$2.50 (Mar)
6 days \$75.00

We had Mr. Sugatake arrange to pay Chadai (profit to house), the mesans, bath boy, and 2 bantos (door boys) and he thought 35% of our hotel bill would be sufficient for all. Bath, board room etc \$86.

Chadai	15%	\$ 12.90
Mesans	10%	8.60
Bath boy	5%	4.30
Banto	5%	4.30

We did our packing before supper and about 9 P.M. had our last Japanese bath.

Coming to our room the mesans thanked us very much for our gifts.

Wednesday, May 29, 1929.

En route to Hakodate.

Arose about 6 A.M. and we finished packing. As we left the hotel the mesans, bunto boys, bath boy, head mesan, and manager all gathered at the door to thank us and bid us good bye. We left by taxi (1 yen) for the station. The train left for Hakodate at 7.20 A.M. (2nd class)

We first passed through a farming area, occasionally seeing a silo and several dairy herds. Much rice and wheat is being grown. For about 2 hours we saw some excellent apple orchards just coming in bloom and kept in excellent shape both as to tillage and pruning. Spring wheat is grown all together through the section passed and is used in the manufacture of soy sauce. We passed through valleys and rather a mountainous region after Utsunomiya. The tops and sides of the mountains were still covered with snow. In the lowlands the farmers were planting soy beans, dropping and covering by hand in 15 in. rows. Rice paddies were being

planted. The wheat had been planted in rows about 12 in. apart and in many cases workers were observed hoeing between the rows.

We had planned on getting our breakfast on a diner but shortly after the train started we found there was no diner so had to get Bento (lunch in a box) as it were from a lunch boy. We obtained one box of sandwiches. The other boxes containing rice with pickle wrapped in seaweed, fried bean curd, radish pickle, and other pickles. At noon we go another bento.

The scenery all along the way was very beautiful. We saw many very beautiful flowers on the side hills and in swampy places. The bamboo was everywhere. Along the hills and in the valleys seemed particularly fine places for botanizing. Within a short distance of Hakodate was a lake on each side of the track. These lakes were dotted with small islands dotted with pine trees. We also saw the volcano, which becomes slightly

active once in a while. It was very beautiful and the stage was covered with lava and ashes. At the base was farming country, mostly rice paddies.

We arrived at Hakodate at 4.45 P.M. and our baggage was taken to the Katsuta Hotel, directly across from the station. We were shown the rooms. They had one foreign room with a bed and chairs but we decided we had rather have a Japanese room. The rate was 4 yen a day for each including breakfast and supper. We had a large room and a small room off this one. Soon after being in our room we were served tea and cakes (rice cakes with adzuki sweet paste inside). The manager came soon and welcomed us, thanking us for coming to the hotel and hoping our stay would be pleasant. We had to fill out blanks as in Europe giving our name, occupation, address, and age.

After a Japanese dinner of several kinds of fish including two kinds of raw fish, we went to see the Cherry blossom at Hakodate Park. The cherries were in full bloom. The park was beautifully

illuminated with electric lights
in Japanese lanterns along the
way and lights in the trees. There
were many varieties of cherries,
including pink and white singles
and pink and white doubles.
The park was beautifully situated
at the foothills of the snow-capped
mountains. The park resembled
a veritable fairyland and had
many sorts of refreshment stands.
Mr. Sugitake, our interpreter said
that he had never seen more
beautiful cherry blossom scenes. The
trees were quite old and were
well kept. Among the cherry trees
and scattered about the landscape
were small ponds and waterfalls
on which green and red lights
played through the cherry trees.
The whole park was the most
beautiful sight I have ever seen.
Many beautiful colored movies
could be taken but we were in the
fortified zone so no pictures
could be taken without permission
of the commanding officer and
this would take several days.
It would be well worth

while next spring to obtain
permission if possible and make
a series of colored movies as Mr.
Sangstake who has seen all of
the cherry growers on the main
island said he had never seen
such beautiful cherries. We
were able to obtain some colored
post cards showing different
views for the quarterly report.
3 sets cards @ 25 sen each - 75 sen.
After spending about 2 hours
in the park we reluctantly
returned to the hotel.

Thursday, May 30, 1929.

Hakodate, Japan

Cool and clear. After our breakfast of soups, several kinds of fish, omelet, rice and tea, we went again to Hakodate Park to see the cherries by daylight. Although very beautiful they seemed more not as pretty as at night under illumination. A strong breeze had sprung up and the petals of the single varieties were falling and at times fell so thickly that the scene was like a snow storm. Many of the trees had shed many of the petals during night and early morning. We saw so many beautiful white and deep pink double varieties. It would be worth a special trip next spring if permission could be had to take a series of motion pictures.

We then went around to visit seedsmen to see if we could pick up any new varieties of soybeans and succeeded in obtaining four samples at 10 sen each - 40 sen. At a corner grocery while waiting for a car we succeeded in obtaining some

lily buds (edible). We also saw a Japanese Buddhist funeral with waiting.

We went by trolley to the end of the car line outside the city limits to see wild lily of the valley and pick up any other plants specimens we could. After getting off the car we walked about 2 miles in the foot-hills and found the wild lily of the valley growing everywhere. They were more plentiful than we had. They were just coming into bloom. We gathered some plant specimens and a number of roots to send back to the states. Margaret also gathered a big bouquet of the flowers. Trilliums grew quite profusely about on the hillsides and we gathered several species of the purple flowered ones for herbarium specimens and one white-flowered species. We saw large numbers of the wild nut cherry in bloom about on the hillsides. On our return to the car station we found quite a crowd with lily of the valleys which they had been gathering in the neighboring hills. Many

of the children had several bonnets each which they evidently had gathered to sell.

In the evening after supper we took a short walk and saw many fur stores where they had large brown bearskin rugs, fox-furs, and others fine for sale. We also came to a pickles store where there were all sorts of pickled and salted vegetables. We saw a keg of pickled soy bean pods. The pod was about full grown and had been salted down as we would cucumbers and sauerkraut at home. These beans are eaten from the pods as we eat dill pickles and go along with drinks.

Friday, May 31, 1929.

En route to Tokyo.

Awoke about 6 A.M., cool and clear. Had breakfast about 7 and began packing. Our bills were presented and were for two days amounting for the three of us to 24 yen room & board - 2 yen extras - total 26 yen. To this we added 35% for chadai and servants making in all 35 yen.

After breakfast, the servants came to thank us for our tips and we were presented by the hotel with a towel and handkerchief apiece. We left at 8 A.M. on the ferry for Aomori where we take a train at 9 for Tokyo. Our sleeper tickets amounting to 15 yen for 4 persons were purchased last night. After getting on the ferry, our luggage being brought from the hotel to the boat by the hotel porter, we purchased our express tickets Aomori to Tokyo. Express tickets " " " 7 yen.

Ferry arrived at Aomori 12 noon and arranged with porter to take our luggage direct from boat to our sleeping car. We had lunch at

the station which has a very good dining room. We had ham, eggs, and toast. Mr. Sugatake has a Japanese lunch (70 sen) which consisted of a big bowl of rice, pickles, soy sauce, raw fish, fish roll with yuba inside, & tea. Ham and eggs costs us 50 sen each.

The Aomori prefecture is the largest apple producing section of Japan. Passing through the country large numbers of horses were noticed grazing along the rice paddies. Near Sannoi several persimmons orchards were noted and also about the houses. This was noted for many miles north of Sannoi. At Ichinoi, many children were seen with large bunches of lily-of-the-valley which are said to grow wild in abundance in the foot-hills and mountains. Several miles below this place wild lily-of-the-valley and wild primrose were noted for many miles. This would be a good place for botanizing. Dinner was announced at 6 P.M. in the diner. A la carte and a regular dinner were

served. We had the regular
dinner which cost \$1.50
and was very good. 1-Bread,
butter, roll, consomme with
vegetables, fried fish with sauce,
fried chicken, cucumber and
tomato salad, jelly, apples
and oranges, tea or coffee. The
menu was in Japanese and
French.

Saturday June 1, 1929, Tokyo.
Awoke about 6 A.M. It was
noticed as we approached the Tokyo
district that many of the farmers were
planting the rice in the paddies and
in some cases that it had already
been planted. Barley and wheat
are growing up very fast.

Arrived at Hama Station, Tokyo,
at 7:05 A.M. Paid storage charges
on duffle bag and suitcase (see 1).
Took a taxi to the Imperial Hotel.
Cost ¥1.50. Arranged through Mr. Suyatake
with the Head Gardener of the hotel to
send in pots for us iris, Aquilegia,
Fritillaria, and Lily of the valley so we
could obtain seed and also plants to
send back in the fall.

Obtained our old room 355. Day
warm and cloudy. Went to the
Embassy for mail and received
letters from Fannie, Les, Gladys,
Hollis, Mrs. Grant, Hi, Irene.

Worked on plant specimens
collected near Hakodate and
wrote notes on seed samples
collected in Hokkaido.

Sunday, June 2, 1929, Tokyo.
Clear and quite warm. At
breakfast, met Miss McMahon
of the American Embassy. She
is a friend of Gladys and has
been trying to get in touch
with us sometime.

After breakfast we went
to the office where I developed
the films of pictures taken in
Hokkaido.

In the evening worked on
the seed samples collected in
Sapporo and Hakodate.

Wrote a long letter to Gladys
about our trip to Hokkaido.

Monday June 3, 1929.

Went to the office early and worked
on samples of seed and plants
collected in Hokkaido.

Shingo Tuesday, June 4, 1929.

About 225 lbs. of mulberry leaves shown in the next place are used to raise silkworms from eggs of 8 moths.

These quantities of cocoons (about 6 gallons) are spun by about 3000 silk worms shown in the next place.

These quantities of raw silk (about $1\frac{1}{4}$ pounds) are reeled from 6 gallons of cocoons shown in the next place.

This kimono (about 7 lbs) is woven with $1\frac{1}{4}$ pounds of raw silk shown in the next place.

Left at 9.30 A.M. To visit the Silks College at Nisigahara. We were first shown the experimental rooms where we saw the silk worms in different stages of development from the eggs to the worms spinning the cocoons.

Experiments were being conducted with different species of silk worms and different methods of breeding the worms. Electric breeding the mulberry leaves

one large branch outside one of the buildings was being conducted. Movies were taken of the silkworm feeding on mulberry leaves just before ready to put in trays for spinning their cocoons. Movies were also taken of a tray of cocoons and the students stripping leaves from mulberry branches. We were then shown the silk worm exhibit showing all stages of the silk industry from the silk moth to the finished kimono. The data at the beginning of today's diary shows the data regarding number of worms, moths, and mulberry leaves necessary to produce a certain amount of silk. Insects and diseases affecting the silk worm and mulberry were also shown.

This school is a most excellent one and has a large set of buildings. In one series silk worm experiments were being conducted by officers or professors, while in another group of buildings separate rooms are provided for students in their work. Worked on expenses account in evening.

Warm and cloudy. Sunshine at times.

Tokyo Wednesday. June 5, 1929.

Went to office in morning and found the Corsetts had returned from their trip.

Developed motion picture (DeVry) in the morning of scenes at Hoshigaya. Arranged seed and bulbs obtained from Hokkaido and finished notes on same. Packed Parake 14 and 15 for sending to the U.S. Dept. of Agr.

Developed motion picture reel of cherry blossoms scenes taken in Hokkaido.

Day warm and clear. Nice and cool in evening. Self & integrals to Uzi ^{even} 30 ^{sun} - 60 ^{sun}
Tokyo. Thursday. June 6, 1929.

Raining very hard in the morning and fairly cool. Cleared up about 10 A.M. Went to office and helped develop a motion picture film. Scenes were taken inside soy sauce factory in Sapporo and silk worm factory. There was not enough light so the pictures are too thin to be of value. Will not apparently be able to take inside pictures. At least movies of any soybean industries. After lunch at the inn wrote

on expense account and quarterly report. Also arranged herbarium specimens of plants taken up in Hokkaido. In evening worked on expense account and wrote long letter to Joe Johnson.

Friday, June. 7, 1929.

Tokyo, Japan. Cloudy and cool in the morning. Went to the Consulate for mail and received a letter from Joe regarding salary. Then went to office and on the way collected two grasses for herbarium sheets. Attended the late Azalea show at Hibiya Park which opened today. This exhibition has many hundred plants, all in pots, and arranged in many forms. It was a wonderful exhibition of beautiful plants and flowers. Purchased a book or report on the Azalea show for 1 yen.

Paid 68 sen for 17 prints of pictures taken at Sapporo, Japan.

Worked on expense account and quarterly report notes.

Saw Chinese woman with small feet (bound) as we came from Sankaido Bldg.

Saturday, June 8, 1929

Tokyo, Bright and clear. Cool. Went
the morning on expense account. About
noon went to the Ginza and stopped
at the Kyo Banwa which is one of the largest
book stores in the East and handles most
any book in English or can obtain it for you.
It has a very complete set of school books
and we will be able to obtain all of the
books needed for Margaret's schooling. Bought
her a Farr & McMurry Geography. Met a
Mrs. Grant who teaches in Tokyo schools
and works at this store in the P.M.

Went to the Matsuya Department
store and had a Japanese dinner for
1 yen. This had a fish soup, large bowl
of rice, bowl of pickles (radish, melon),
small fried whole fish, several slices of
raw fish with forced odo garnish,
several slices of shell (like our mussel),
dish of soy sauce, and tea.

After returning to room worked on
Hokkaido trip for quarterly report and
after supper work on the same until
about 12 o'clock.

Very cool in the evening.

Sunday, June 9, 1929
Tokyo, Japan. Cool and clear in the morning but much warmer later in the day. Worked on quarterly Rpt. in the morning. Later went to Hibiya park and took 30 snapshots with Leica camera of late azalea plants on exhibition at the annual azalea show. Went to office and developed film. In afternoon went to Herbar Park to look over plants for seed and herbarium specimens. In the evening worked on expense account for May. Wrote to Holly in evening.

Monday June 10, 1929.

Tokyo, Japan, Warm and clear. Worked on expense account in the morn. Went to Hibiya to take pictures with Leica at different focal lengths of the late azalea plants on exhibition, 4.5 = 4 ft.

- 1- 4.5 = 4 ft - 30 sec - best
2- 4.5 - 5 " - 30 " N.G.
3- 4.5 - 6 " - 30 " N.C.
4- 4.5 - 4 " - 25 " Best
5- 4.5 - 5 " - 25 " N.G.

6	- 4.5	- 6 ft.	- 25 sec.	W.C
7	- 4.5	- 4 "	- 25 "	8 - 200 gms
9	- 4.5	- 5 "	- 25 "	
10	- 4.5	- 6 "	- 25 "	
11	- 4.5	- 6 ft	- 20	✓
12	- 4.5	- 4 "	- 20	✓
13	- 4.5	- 5 "	- 20	✓
14	- 4.5	- 25 "	- 20	✓
15	- 4.5	- 3.5	20	
16	- 4.5	- 4	20	
17	- 4.5	- 5	20	
18	- 4.5	- 6	20	
19	- 4.5	- 7	20	
20	- 3.5	- 5	- 20	
21	- 3.5	- 6	- 20	
22	- 3.5	- 7	- 20	
23	- 3.5	- 7	- 20	
24	- 2.5	- 8	- 20	
25	- 3.5	- 10	- 20	
26	- 3.5	- 8	- 30	
27	- 4.5	- 8	- 30	
28	- 4.5	- 7	- 25	
29	- 3.5	- 7	- 25	
30	-			
31				
32				
33				
34				
35				
36				

The prizes had been awarded and pictures were taken of some of the prize winning plants. One plant was over 500 years old, several were over 100 years old.

About noon we went over and had lunch at the Olympic where many Americans eat. Later came back and wrote up motion picture films. In the evening went to see the Azalea show by night. Wrote letter to the Hollys and also one to Allanson.

Tuesday - June 11, 1929.

Warm and clear.
Tokyo, Japan. 3 print each of
14 negatives @ 4 sen each 1.58 sen
In the morning went to the
Consulate for mail. Received Forge
Crops News letter. Also received
letters from mother, the Johnsons
and Addie.

In the morning went to the office
and wrote up and placed in
herbarium sheets the plants we
collected near Hakodate and
Sapporo.

Today is said to be the beginning
of the Kyushu, the Japanese rainy
season. Worked on expenses account
and also on quarterly report.

Received a cable from Ryerson
saying he was able to add only
\$35.00 to our account. Donist called
asking for \$500 more to carry
us through to July 1. Paid
\$5.28 for this - Receipt received.

Developed Leica film containing
pictures of Azalea plants at the
Azalea Exhibition in Hibiya Park.
Some of the films seemed to be
very good and have the right
focus.

Finished letter to Allanson
in the evening.

Wednesday, June 12, 1929

Interpreter and self to Kichijoji
and return (60 sen each) 1,200 sen

In the morning we went
to Kichijoji park which is a
very extensive park which is
noted for botanizing. While on
our way it began to rain a
slow drizzle. When we arrived
at Kichijoji it was only
sprinkling so we went to the
park and worked around the
woods and fields near and
near the park. We made a
collection of several grasses,
sedges, and other plants.

This is a very beautiful
park, has some small lakes
and a swimming pool. There
are many nice walks through
the woods.

There is also a very beautiful
shrine on a small island in
one of the ponds. Many animals
are in cages and also some
birds. There is also a small
fenced-in area which has
some stags deer.

Received letters from Hull

Joe Johnson and Irene. Sent
May expense account to Joe Mahoney.
Also mailed letters to Allanson,
Hobbsville, and Ains Gert. In the
evening worked on notes on the
specimens taken in Hokkaido for
quarterly report. Weather cloudy,
cool and drizzling at times.
Letter to Joe Mahoney ————— .22

Thursday, June 13, 1929.
Clear and cool. In the morning
went to office and worked on
plant specimens gathered
near Kichijoji, June 12. Rec'd
27 samples of soybeans from
Prof. _____ of the Akita station,
Akita, Japan. Where they are
doing considerable work on
soybeans for northeastern
Japan. Worked on these samples
in afternoon and evening.
Wrote letter to Mr. Sakata in
Yokohama regarding trip.
Wrote Usakley for large
manilla envelopes.
Tokyo, Japan

Friday, June 14, 1929,
Tokyo, Japan.
Letter to Sakata - 3 sen.
En. Urawa ab. 10.40 A.M.
Lft Tokyo 9.15 A.M. 3rd class.
Movie - 18 ft - Japanese women near
Urawa bundling barley.
Lft Urawa 4.30 P.M.
Ar. Tokyo. 5.45
Fare Utsunomiya & return to Urawa
ad 40 sen each 3rd C.

We arrived at Urawa about
10.40 A.M. and went down one of
the streets that led into the country.
It is a large village and has
some paved streets. It appeared
much cleaner than most of the
small towns. We walked along
a road which led through quite
extensive rice fields. On the higher
lands, and even on raised beds
near the rice paddies, considerable
barley is raised and some wheat.
About one half of the grain in
this region has been cut and
is cured in all sorts of ways.
Much is hung on the fences and
on poles in the farm yards.
The wheat and barley are

planted in about 2 foot rows
and all such grain fields
had other crops coming up in
between the rows. In one section
where evidently considerable
truck crops are grown, the
crops had been planted between
the standing rows of grain.
Such crops noted were soybeans,
garden beans, adzuki beans,
egg plant, tomatoes, sweet potatoes,
onions, taro, garden beans,
yams, in fact it seemed that
about all vegetables were set
out in the standing rows of
grain and these were afforded
shade and moisture when
young.

Many grass and legume
specimens were gathered
along the way. Some wild
itch was noted but was not
yet in bloom. One small growing
Lathyrus was found in bloom.

Going along the rice paddies
many forms of rice culture
were going on. In some paddies
women and men were plowing
with the large tools, in other

paddies, men were plowing the fields with rake like plows using cows, oxen & horses. In some paddies men and women were up to their knees in mud and water planting the rice plants. We also saw men and women taking the rice plants out of the seed beds, tie them in small bundles, and place a large number of the bundles in a large rope basket. Two men then took a basket and went to a paddy and cast the bundles about the paddy, after which the men and women began planting. The plants were planted down in the mud under water and were about 4 in. above the water. The plants were placed in rows about 12 in. apart and in the row about 12 in. apart, making 4 plants to the square foot that is one plant at the corner of each square foot. In one section, they were using a line across the paddy to keep the rows straight. In others, no care was taken in making the

straight.

In three instances, men were observed fertilizing the fields with soybean oil meal. Each had a large wooden tub holding about $1\frac{1}{2}$ bus. of the meal. The man broadcast the meal over the paddy just ahead of the planters.

Motion pictures were taken with a 5.6 stop and also 8 stop of the following

- 1- Japanese ^{women} bundling barley.
- 2- Japanese plowing rice paddy with cam.
3. Rice planters - men and women planting rice
4. Close up of rice planting.
5. Japanese broadcasting soybean oil meal over rice paddy for fertilizer.
6. Bundling the rice plants from the seed bed & tying in bundles. Boys and women.
7. Woman Japanese smoothing rice bed after fertilizer has been distributed.

A small sack of barley heads were gathered from a farmer's field about 1 mile from Obawa.

after obtaining along the way we
came to the small village of
about 2.30 P.M. We found a small
but rather dirty lunch room run
Chinese-Japanese style, and had a
sort of chop suey dish with a plate
of rice. The meal was very good and
only cost us 50 sen each. Afterwards
we visited a small store where they
sold grass hats and grass rain-
coats. We purchased a grass rain-
coat at 90 sen, 2 hats at 40 and
another hat at 20 sen. about 4.10
we started walking to the next
station,

and saw
plenty of rice planting, but it was
too bad a light to take pictures. The
Leica with range finder was used
in taking several pictures and it is
hoped better pictures were obtained than
has been with this camera.

- 1- Japanese farmer plowing rice paddy
- 2- Sweet potatoes planted between rows
of barley.
3. Japanese farmyard
4. Field of crown daisy in bloom.
5. Japanese boy & women planting rice
6. " " " " " "

We found no plants but what we
had already gathered. We reached
the village of _____ and caught
the 5.10 for Tokyo. _____
where we arrived at 6 P.M..
As we journeyed toward Tokyo,
Kudzu was noted growing
abundantly along both sides of
railroad in the steep embankments.
Day was fairly cool and cloudy.
All were quite tired when we
returned to the hotel.

Saturday, June 15, 1929.

Went to office and worked on
soybean seed samples received
from Dr. Keiji C. _____, Chief Director
of the Akita-Kan Agri. Exp. Sta., Akita,
Japan.

After lunch we developed the
motion picture film, part taken
at the silk worm school, inside
views and which were no good.
Some of the views were of rice
planting taken in the vicinity
of Obrawa and also swam

a little too large an opening, will
make good pictures. In the
evening worked on notes on
soy bean seed samples and wrote
on quarterly report. Warm and
clear during the day, in the
evening about 9.30 it began
raining. Received letter from
Irene and Aunt Mary, and
Ray Pierce.

Sunday, June 16, 1929.

Cool and clear. Left about 9.20 A.M.
and took taxi to Asakusa station, where
we took train to Horikiri with Mr.
Ikeda, a licensed interpreter to view
the old Iris Gardens of Horikiri. We
went to the home of Mr. Meizima,
head gardener of the Imperial Hotel and
left our lunches. We first visited
the gardens where many
beds of beautiful Japanese iris were
in full bloom. After taking many
still pictures and about 150 feet
of movie film, we went to Mr.
Meizima's home where we

ate lunch in one of the rooms
of his home. We were served tea,
boiled green broad beans, cucumber,
and cabbage salad, cookies, and cakes
by Mrs. Meijima. We also brought
lunches from the hotel. We were
the first foreign visitors ever enter-
tained in Mrs. Meijima's home and
they seemed very proud of it.

After our lunch we went to the
gardens where no entrance
fee was charged. Here the drive
was arranged in beds and each
sanitary labeled. There were many
rest places or garden house about
the place from which to view the
drive. There were some very
beautiful pines scattered
about.

Taxi fare ^{Hotel} to Asabusa	7.50
R.R. fare Asabusa to Horikiri	.07
Admission to his gardens	'
R.R. fare Horikiri to Asabusa	.07
Taxi Asabusa to Hotel	—

Left 9.20 A.M. returned 4.00 P.M.

Wrote special correspondence
in the evening.

Monday, June 17, 1929.

Tokyo,

Warm and clear. Went to the Consulate for mail but no letters. Motion picture films received through embassy pouch. Went to office and developed motion picture film of rice scenes taken Friday and iris scenes. In the afternoon, developed another motion picture film of all iris scenes. Both reels turned out good. Also developed Leica films which did not turn out very good even though a range finder was used.

Finished seed samples for sending in today to Department. Also wrote notes on soybean products obtained in Hokkaido. In the evening, worked on quarterly report and wrote notes on motion picture films.

Tuesday, June 18, 1929
Tokyo.

Raining and warm. Went to the Embassy and gave Japanese Bull. to be sent Cabot Coville of the Embassy. Obtained 3 packages received through Diplomatic Pouch which was at the American Consulate. These packages contained 50 $2\frac{2}{3} \times 4 \times 4$ and 50-5x7 negatives as ordered by Dorsett in a previous letter.

Took taxi from Consulate to the Sankaido Bldg. ————— 1. yen

Worked on Herbarium material collected near Brava and a park. Wrote up shots on two motion picture reels have success of rice planting near Brava and scenes in the iris gardens near Horikiri. Had lunch at the Sankaido Bldg. In the evening wrote notes and a letter to Ryerson. about 5 P.M. it stopped raining and the sun came out. Decided not to make the Fuji trip on account of the impending visit of Mr. Arnold from China.

Wednesday, June 19, 1929,
Tokyo, Japan.

Warm and clear. In the morning went to Hibuya Park to take pictures with Leica camera and took several pictures in children's playground of the many kinds of play things for children. Then went to Office and developed films. Had lunch at the Sankaido Bldg.

In the afternoon Mr. Sakata of the Sakata Seed Co., Yokohama called about 2.30 P.M. with regard to Japanese vegetables that might be of value to the United States. He has several connections or agents in the U.S. and supplies considerable seed annually of vegetables. He is at present pushing the Japanese green onions, and mentioned the radish (daikon), and the Japanese red turnip. The Japanese import very considerable quantities of common rutabaga for green manure work. Astragalus sinensis is also used extensively, of which there are three varieties, early, medium and late.

Kudzu seed which Mr. Sakata

channels for the states, and says
that Kudzu grows wild on the
main island and that considerable
seed is gathered about the base
of Mt. Fuji.

He promised to cooperate with
us in obtaining seed of Kudzu,
vegetables, and, in fact, cuttings
or anything in the plant line
that we might desire for intro-
ducing into the U.S.

In the evening, Mr. Sakata
had dinner at the hotel as guest
of Mr. Dunsitt and we were also
invited.

In the evening, worked on
quarterly report, and wrote
on other notes.

In the afternoon, had a
rain, thunder, and lightning
storm, the 2nd thunder storm
since we have been in Japan.
Lasted only a short time and
cleared off cool.

Thursday, June 20, 1929.

Tokyo - Japan. Cool and clear.
In the morning went to call at
the office of Mr. Honda who is a
teacher of Japanese history in
Tokyo schools and has an office
near the Imperial Hotel. He found
that in addition to teaching he also
sells vases and other Japanese
curios on the side. He told us of
the Agurawa Gardens at Atsumi.

Went to the office and worked on
Herbarium specimens and worked on
soybean notes. In late afternoon
went up by old Embassy grounds
and down through some side streets.
Was on the lookout for a bean curd
factory. We found one on a street
but evidently the work is carried
on in the morning. For nothing was
going on and the utensils used
were all washed up and drying.

In the evening worked on quarterly
report and wrote a study.

Official postage - Ryerson	16 sen
" " - Haskley	10 "

Friday, June 21, 1929.

Tokyo, Japan. Raining in morning.
Worked on quarterly report and
wrote blankly regard progress in
trip and also asked for manilla
envelopes, 8x10, plain and franked.
Had lunch at Morinaga's and
bought box of cam for Mr. Maizumi,
head gardener of the hotel at whose
home in Horikiri we had lunch
when visiting the Iris gardens at
Horikiri. Sunday, June 17.

At night the Sakatas called
about 6 P.M. to take us out to
dinner. We went to a small
restaurant and had a small
dining room. We were first served
beer. Then lacquered boxes were
brought in which contained fried
small lobster and fried fish which
looked like eel. We were also served
grated radish and sliced green
Japanese onions. Rice of course and
thick tea. Afterwards all took a walk
on the Ginza where we bought some
painted silk worm cocoons near the
Esplanade. Returned to hotel about
8.30 and worked on quarterly
report until eleven.

Saturday, June 22, 1929.

Tokyo, Japan.

Warm and clear, in the morning went to office and it was a good day for justness, we went to the Meiji Shrine to view the Japanese iris gardens which were in full bloom. The gardens were in old rice beds that had been the sacred rice beds of the Emperor Meiji. The gardens were in a little natural valley winding for a considerable distance and the iris arranged in beds. There are said to be about 200 varieties. The iris were very beautiful and had many shades of purple, blue, and pink.

These are imperial gardens and were just opened a year ago to the public. Today was special visitors day which we did not know but upon presentation of our cards were admitted and conducted to the gardens by one of the student monks. We were first taken to the lily pond which was very beautiful and had many large beautiful waterlilies of different colors, white, red, red and white, yellow. Near the

path and extending over the water
was a small wooden pier or platform
which is the private fishing platform
of the present Emperor. The small
lake or pond had large numbers of
fish, carp. Near the bank was a basket
of fish food, round cakes, which one
was permitted to throw to the fish.

We took stills, snapshots, colored,
and black and white movies of
several different scenes in
the gardens.

In afternoon went back to hotel
and worked on quarterly report.
Received a letter from Dr. Pieters.
Car fare to Meiji shrine -
" " from " " -

Sunday June 23, 1929.

Tokyo, Japan, warm and clear. In the morning worked on quarterly report. Wrote Dr. Pieters regarding work and also information on the Forage Crop Office "Who's Who". Also finished letter to Gladys asking her to send some cherry blossom pictures.

In the afternoon we went to the Ginza and had lunch at the Olympic Cafe. After lunch we visited the Matsuya and Matsuzakaya Dept. stores.

In the evening, worked on expense account and itinerary for the month of June.

Monday, June 24, 1929

Tokyo, Japan, Raining all day

Prof. P. K. Okazaki

ad. to

Tokyo Agriculture

Dr. W. A. Taylor,

for Dr. Chubbarton.

Dr. W. L. Burdison.

Dr. H. B. Hughes.

Dr. A. F. Woods.

Dr. R. A. Pearson.

A. F. Maim.

Get information on methods
of teaching employed in the
agricultural colleges & school
education.

Dr. E. L. Merrill - Calif.

= Ke#110, GK&Z&KI

proof.

Letters before July 19, 1929

as he sails for U.S. at that time.

Went to office in the morning and
collected material for going to Mt. Fuji
region to botanize.

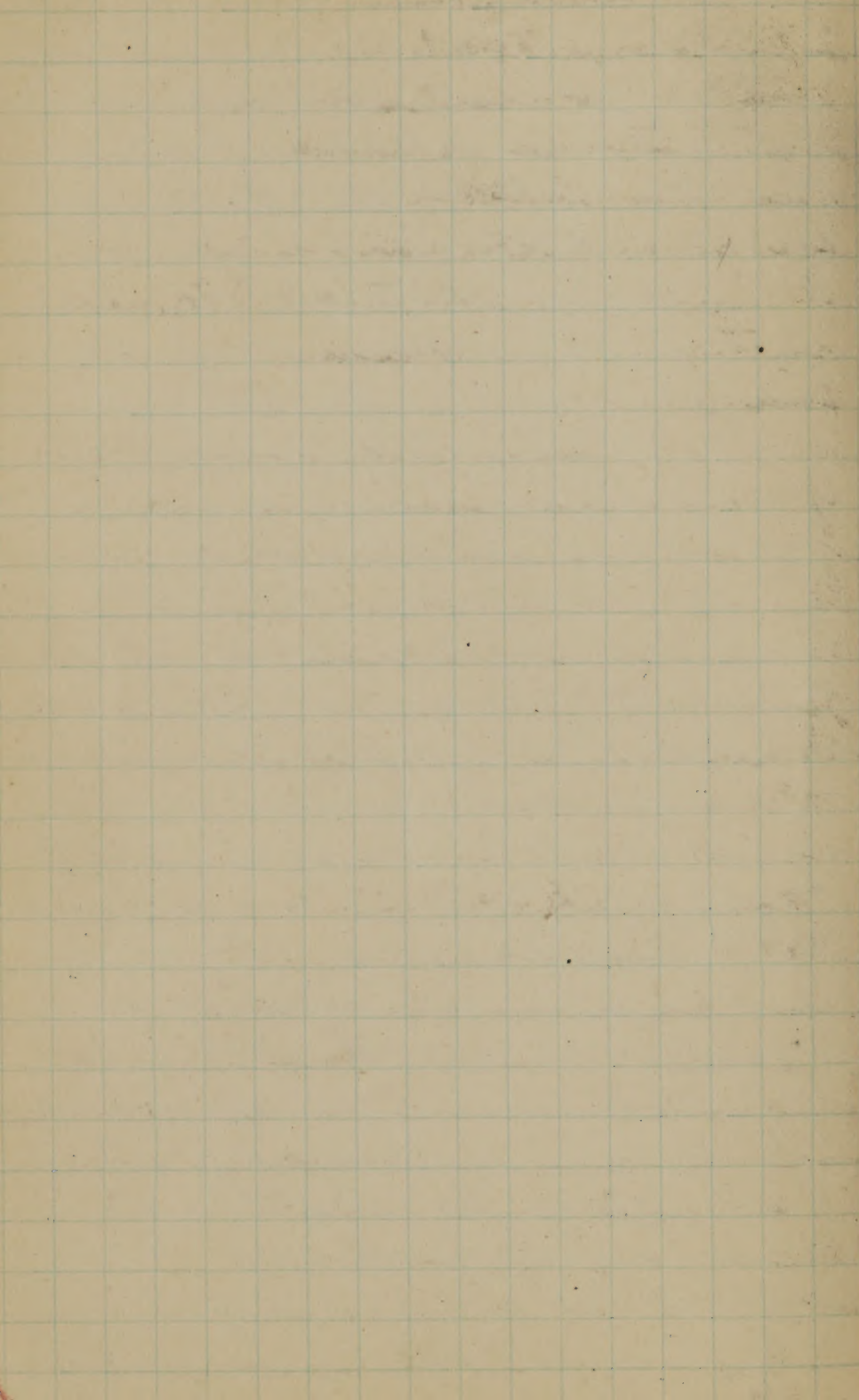
About 11 A.M. we went to the Tokyo
Agr. College to meet the President, Dr
Sanketara Kikkawa. We were not able
to meet him until 2 P.M. so went
up to a main street and had our

lunch. When we returned Dr. Kikkawa had returned and we had a conference with him, Prof. Ukazaki, Prof. of Education, and Prof. A. Kikuchi, Prof. of Pomology of the Kyoto Imperial University. The main talk was concerning green manure crops in Japan.

According to Dr. Kikkawa the principal green manure crops used in Japan are: *Medicago denticulata*, soybeans, Gerge clover (early, medium, late, also called Chinese milk vetch, *Astragalus sinicus*), spring vetch (*V. sativa*) and sometimes peas (*P. arvensis*). In many places green leaves and branches from trees and shrubs are gathered and worked into the soil.

Soybeans are used quite extensively as green manure in the rice paddies. Varieties yielding poor in seed but giving a large yield of growth are grown. These varieties also bear a much smaller seed than those that are grown as a green vegetable bean or are grown for grain.

for miso, shoyu, Natto or Tofu.
In the spring the soybeans are
sown between the barley or wheat
rows in the rice paddies and
when the soybean plants are in
bloom the latter part of June,
depending on latitude, the plants
are turned under, and shortly
after the rice plants set out.



Thursday, June 25

Left Tokyo 8.40 A.M.

Tokyo to Utsunomiya - 3rd C. —

Arrived Utsunomiya 11.30 A.M.

Auto hire. Utsunomiya. —

Left Utsunomiya 4.40 P.M. and arrived

at Fuji 6.00 P.M. - Stopped

at the Inn.

Supper -

Soup - Soy sauce with small block
of bean curd; soup ^{fish sausage, mushroom} with sprigs
of grass (*Zoysia pungens*); fried
chicken in batter; sweetened
cucumber with grated dried fish;
pickled radish and melon; sliced
tomatoes; plain millet, rice, and
sliced bananas.

We left Tokyo by electric and caught
a train for Utsunomiya (3C) where we arrived
at 11.30 A.M. Had lunch at the

Inn. Lunch consisted of egg soup.

Fried mountain trout, pickled radish
and melon, rice, and tea. After lunch
we took a taxi and drove a few miles
in the country and hiked back to
Utsunomiya. On our way back we
collected a number of botany specimens
and some seed of two species of
orchids.

We found many flowering shrubs
in bloom, such as *Scutellaria*, pink
Spiraea, *Columbine*, We saw many
thrashing scenes on our way back
wheat and barley. Soybeans were
being used to some extent for green
manure.

In the evening the forester of the
prefecture called at our rooms and
gave us permission to botanize in
Fuji region. He also made arrange-
ments to have two of his assistants
accompany us on a botany trip
up and around Fuji tomorrow.

The hotel we are stopping at is
a very good one and serves very
good meals. Excellent views of Fuji
can be obtained from the bedrooms

Wednesday, June 26, 1929.

Fuji Yoshida,

About 8 A.M. an auto came after us with the assistant forester to botanize around Fuji. We went up a new auto road which they are constructing up Mt. Fuji. Along the way we obtained several plant specimens. Iris was in abundance through the woods and in full bloom. Azaleas were also in abundance and for the most part their bloom although we did obtain a few specimens of flowers.

We proceeded up as far as the 1st rest station about 4000 ft. altitude and obtained some excellent views of the lake and mountain regions although too hazy to take any distant pictures. At and near the rest station we obtained seed of the mountain strawberry, and plant specimens of grasses, shrubs, and two kinds of aquilegia. Also obtained some specimens of a beautiful pink

and white cyzopedium. The man
and woman in charge of the rest
house served us tea. We gathered
seed of wild mountain cherries
on our way back and also
collected other plant specimens.

Had lunch at the inn and
then in the afternoon went to see
an old and large sistraria vine at
the way back we
saw numerous silk rearing
glows, and many houses with
iris, lilies, grass, and other
plants along the ridge of the grass
thatched houses. Movie and
still pictures were taken of
several of the best. When we got
back Mr. Ongetake and I gathered
mush and from a weeping
cherry tree in the street in
Yoshida. Yoshida is the center
of silk culture and rearing. It is
said the Fuji silk is produced
here.

Thursday - June 27, 1927.

Fuji-Yoshida.

Breakfast - Coffee - hot milk; 2 fried eggs; soy sauce soup with small block of bean curd; soup with young celery and fish maw; ^{ears} large box of dry seaweed with soy sauce; preserved plum; slices of pickled radish, rice.

Left Fuji-Yoshida about 8 A.M. by auto for Shoziko. We stopped along the way at various places to take pictures and botanize. First stopped at a little village which evidently is quite a rich warm place. Dorsett took picture of trays of silk worms dropping in bamboo trays. There were being dried for fertilizer.

We also stopped at some lava lava beds where wood holes occur. That is where Fuji erupted. The lava formed around trees and cooled. Afterwards holes near the size of the trees was left.

We also stopped at a place where there was a large ~~sink~~ below the lava beds. We went down in

The cave where silk worm eggs are kept for about 1 year. Had to go by candle light and found ice in the cave.

We moved to Shogitso and collected many plants. Arrived at Shogitso about 11.30 A.M. Had lunch and then botanized in the region of the lava beds. Found some fine dogwoods in bloom along the mountain sides and took still and movies. Started to walk to the Shogitso Inn and found many very interesting plants of which we collected specimens. We found along the mountain trail an excellent orange yellow raspberry growing in abundance. Much seed was obtained. The Shogitso Inn had good European quarters and also good Japanese quarters. Both kinds of meals were served. The meals were not extra. I paid 5 yen per day for room and two meals. The European quarters were higher -

Friday, June 28, 1929.
Shoji to Kofu. Left Shoji
hotel on foot with Darrett and
Suytake for Kofu. We had a boy
and pack horse for our luggage.
We started down the mountain
trail about 8 A.M. and had
proceeded only a short way when
the horse became uneasy along
the trail and it looked as tho.
for a few minutes that boy, horse,
and luggage were going down
the mountain side into the
lake. The boy finally dismounted the
horse and the baggage taken off
and sent across the lake by
boat where we could get another
horse. During our walk around
the lake we gathered many
botanical specimens. As
we obtained a horse and boy.
also visited some temple grounds
and obtained picture of an
old and famous cryptomeria.
We went out of the village up
the mountain trail which
winding was rocky and quite
narrow. Along the way we

Found an abundance of
good plant specimens. The
orange raspberry was in great
abundance. Two kinds of
flowering dogwood were found
along the mountain sides. We
found the climbing rather
stiff in many places. We
reached the top of the first
mountain about 12.30 and
had excellent views of Mt. Fuji
and the surrounding country.
Near the bottom of this mountain
we found a settlement along a stream
in a valley. We made our lunch here.
Along the stream we found several
large raspberry bushes bearing a
bright red fruit which was very
sweet and of which we collected
seed.

After lunch we took the trail
for another mountain and passed
through a beautiful valley where
wheat and barley and rice were
being grown. We found the climbing
of the 2nd peak much stiffer
but found many beautiful
flowering shrubs and plants.

along the way, Chinese raspberries
were in abundance as were also
dentzia, pink spirea, aquilegia
and several dogwood trees in full
bloom were found. Apparently
there are two kinds, one with pointed
bracts or petals and one with round
petals which overlap one another
more or less. They are much prettier
than our American dogwood but
do not seem to be very abundant.
Finally after winding down thru
the mountain side hard through a
canyon we came to the village of
Abaguchi where we took a bus for
Kifu. At Abaguchi while waiting for
the bus we saw an old woman and
a boy and girl about 12 years old come
out of a house naked and go into a
shed to take their baths. Arriving
at Kifu we stopped at the
Inn which is very good and
had good meals at 4 yen per day.
Arrived about 7:00 P. M.

Sat. June 29, 1929.

Kofu - breakfast. coffee, soy sauce
soup with bean curd, sweet pickled
with radish (grated), asparagus
with sauce, cucumbers & fresh
radish in soy sauce, bananas.
Kurosawa by bus to Kofu.
Kofu to Hinohara.

About 8. we left by train to
Hinohara to view the 1800 year
old cherry tree. We botanized
along the way and found many
interesting plant specimens.
Sud was gathered of *Goysia*
jungens growing in rather a
dry situation along the river
bottom land.

Walking up the valley and
to the upland we came to
the oldest cherry tree in Japan.
It was 34 feet in circumference
and some of the large limbs
had been cut off. Other large
limbs were being supported.
Many of the decayed places in
the trunk and large limbs
had been cleaned out and
filled with cement.

This tree still flowers and
bore a considerable number of
cherries of which considerable
sack was gathered to send to
the U.S. Only 1 seedling of this
famous tree was about the
temple grounds. Cards were
obtained showing friends of the
tree in flower. Tea and orange
candy were served us by the
keeper of the grounds. After
taking movies and still
pictures we walked to
Kurosawa where we took
the bus for Kofu.

Soybeans are grown very ex-
tensively throughout the region
about Kofu. With the exception of the
beans growing along the edges or
banks of the paddies the soybeans
are all used for green manure
purposes. The beans grown along
the banks are used for grain. In
some cases the beans are used
for green beans but in most cases
the threshed grain are used for
making miso, tofu, soy sauce,
and so forth.

Along the edges of the rice

fields the beams are sometimes dropped in zigzag holes about 1 ft. apart. While in other cases the holes run in a straight line. The beams are dropped 3 or 4 in a hole. Beams are not planted until after the rice bed is planted.

In most cases, the water is turned in the rice paddies before the beams are turned under.

In a few cases my beams were observed turned under while the paddy was dried. With the Japanese plowing the bean plants are not turned under as completely as we do home with American plows. Generally after a field is plowed under, Japanese men and women go in the paddy and tread under or tramp under the exposed plants. Shortly after the crop is turned under the rice plants are set out. It has been observed in many cases that immediately following the turning under of the green manure crops the rice plants are set out.

In some cases time was

seen to be broadcast over the
fields. In ^{nearly} all cases the straw
from the barley and wheat grown
in the rice paddies was thrown
back in the paddies and plowed
under. Here and there buckwheat
in full bloom was observed
growing between the wheat or
barley rows. This was being
turned under. It was noted
in a few cases that the beans
and buckwheat were first
cut and broadcast over the
paddy before plowing under.
Pictures were taken of different
methods of plowing under.

Supper - Bean curd soup, Fish soup
(fish, forced celery), mushrooms, hard
boiled eggs stuffed with chopped meat
& fried in batter, raw radish and
cucumber, small lobster meat
in seaweed & fried, shell-fishes with
shred cucumber & slice of pear,
crotons with the stuffed eggs, rice,
apples, cherries,

Sunday, June 30, 1929

Kofu, Japan,

After breakfast we took a bus about 8.00 A.M. and went out to Shiozaki to take movies of soybeans and threshing scenes. Soybeans are grown very extensively throughout the Kofu valleys for green manure in the rice paddies. They are also planted along the banks of the paddies for seed, the grain being used for miso. A scene was taken of two Japanese girls planting mixed yellow and green soybeans in holes along the paddy field edge. The holes were about 1 ft. apart and two to 4 beans per hole. The bean plants being turned under were for the most part in bud or bloom stage. The beans were planted between rows of wheat or barley in the paddies. The bean rows are about 2.5 in apart. For the most part the barley or wheat have been

harvested although we
obtained pictures of women
cutting the barley or wheat
between the rows of bean
plants. The beans run from
12-18 in. high.

After the wheat or barley
is harvested and threshed
the straw is scattered back
over the paddy, water turned
in and after thoroughly
soaking the ground the
beans are turned under.

We saw a few cases of
where the beans were being
turned under dry. The
plants for the most part
are turned under by plow
and horse but in a few
cases, men were hoeing
them under with large
fork-like hoes.

Seeds were also taken of
soybeans being turned under
both in dry and wet paddies.

In one section there was no
rice planting going on and
we were told that the farmers

in this section considered this a bad luck day to plant rice. They were turning under beans and threshing out wheat and barley. In the adjoining section the farmers were busy planting rice.

Scenes were taken by movies of a Japanese woman beating out wheat with a long handled mallet. The wheat was in bundles and the bundles were laid down and beaten out. The husband had a foot power machine for threshing. An old man was taking the threshed grain and winnowing it by means of a basket and wind. In some cases it he beating out of the grain on threshed tables was observed. In some instances women were observed threshing out the grain by drawing the heads or plants through a steel teeth. Attempts were made to obtain pictures but in each case our interpreter was turned down.

After settling up our hotel bill we left on the 3:45 P.M.

Train for Tokyo.

Just outside of Kyoto large vineyards were observed. The grape vines were over head, and summer pruning practiced. For a considerable distance the vineyards extended from the railroad well up into the foothills.

In the rice paddies it was noted that soybeans were being grown extensively for green manure as was buckwheat.

As we went along, especially below Otsubi, fishing season was on and many fishermen were observed in the streams. Along many mountain climbers got on the train so that by the time we had reached the end of the mountain district the train was crowded.

We arrived at Tokyo about 9 P.M.

Monday, July 1, 1929.

Tokyo, Japan

Fair and clear. In the morning worked on notes. In the afternoon went to the office and developed two motion picture films, and worked on herbarium material in the evening.

Received letters from Burlison, Hughes, Gladys, Hibley, McKee, and Peters, mother, Mrs. Donovan. In the evening worked on June expense account.

Tuesday - July 2, 1929

Fair and clear. Went down to the office and developed motion picture films. Worked on seed and plant records, and herbarium material. Worked on June expense account. In the evening wrote official correspondence.

Wednesday, July 3, 1929

Raining up until noon. Wrote
letters of introduction to the folks
for Prof. Ketiro Ukazaki of Tokyo
Agricultural College who expects
to sail for the United States 7/19/29

Dr. A. R. Mann. Ithaca, N. Y.

Dr. W. L. Burdison, Urbana, Ill.

Dr. J. B. Park. - Columbus, Ohio

Dr. R. A. Moore - Madison, Wis.

Dr. A. J. Peters. Wash. D. C.

Dr. W. A. Taylor - " "

Prof. A. D. Hughes - Amer. Iowa.

Dr. R. A. Pearson - College Park, Md.

Dr. E. C. Merrill - Berkeley, Calif.

also wrote Sabata Seed Co. re
request of T. E. Brent. Laurel,
Miss. for seed of the Yokohama
Velvet bean seed

Twinked on itinerary and
expense account in evening.
Wrote up motion picture
film scenes.

Thursday, July 4, 1929.

Tokyo, Japan

Raining in morning. Warm
and muggy. Rained all day.
Stayed in room at hotel.
Wrote up notes on ~~anythin~~
picture films and on fern
mannal crops in Japan.
Wrote official correspondence.
Official postage — 6 sen

Friday, July 5, 1929.

Tokyo, Japan. Warm and
clear. Went to the office and
worked on Herbarium specimens
in the morning. After lunch
went to the Tokyo Agr. college to
call on Prof. Ukazaki, head of
the Teaching Department who
leaves for the United States.
July 19. Gave him letters of
introduction to Drs. Taylor, Pieters,
Merrill, Moore, Burlison, Hughes,
Marin, Pearson, and Park. In
the evening worked on expense
account and quarterly report.
Learned from Prof. Ukazaki about a
soil bacteriologist for culture,

Saturday, July 6, 1929

Tokyo - Worked on expense account in morning. Wrote official correspondence. In the afternoon went to the office and worked on herbarium specimens during the afternoon. In the evening went to movie and then worked on seed & herbarium records.

Official postage to Joe ——— 16 sen

Sunday, July 7, 1929,

Tokyo, Japan. Worked on seed and herbarium cards during the day and checked up cards in file book. Gathered seed of wild columbine plant we brought back from Hokkaido. Wrote Gladys a letter.

Raining severely all day. About 5.30 P.M. went down the street and over in Hibiya Park for walk. In the evening it began to rain again.

Monday, July 8, 1929.

Takao.

Tokyo - Japan. Clear and cool.
Left Tokyo for Takao village
about 8:30 A.M. Arrived Takao about 11:15
Takashi Inn. After lunch at
this inn we took the cable car
and ascended the mountain which
is called Takaoyama. Arriving at
the top which we found 900 ft above
the village. It was found that we
could not botanize without special
permit for this forest region
called Takaoyama forest belongs
to the royal family. Mr. Suyetake
went down and obtained a card
allowing us to botanize but we
found that we had to report the
number and kind of plant and
seed specimens taken. When Mr.
Suyetake returned we proceeded to
descend the mountain and botanize.
We collected about 23 plant and
disease specimens, and 6 seed
samples.

At night until about 10, we spent
the time in catch moths and
other insects we collected in large

numbers about the lights. We
caught 2 fireflies the first we
have seen in Japan. Some fine
specimens of moths were caught
for Mr. Dorsett's collection.

Tuesday, July 9, 1929.

Tokyo, Japan. We awakened
about 5 A.M. by the resans opening
the door down stairs. Had breakfast
about 9:00 A.M. For breakfast we
had two raw eggs (which we sent
back to be cooked), bean curd soup,
raw radish and cucumber slices,
small sheets of seaweed, soy sauce,
rice, and tea.

Shortly after breakfast we took
the cable car up the mountain
and then walked to the top where
we had a beautiful view of the
surrounding country and
mountains. There was also a
beautiful shrine at the top. We
caught a large number of very
beautiful butterflies at the top.
After collecting seed samples and
plant material we had a very
nice lunch at a Tea garden
at the cable car stop. After

lunch we took a different trail
from yesterday and collected a
number of plant specimens along
the way. We arrived at the inn
about 4 P.M. We cleared up our
material and settled up our
hotel bills. Our bill for incidentals
(3 of us) for lunch, supper, lodging
and breakfast was \$13.30.
Paid 40 sen for paper for plant
specimens. When I settled the
bill the Japanese lady in charge
gave us three sets of post cards,
scenes about Takao and gave
Margaret two celluloid Japanese
fans. We left on the 4.30 P.M.
bus for Tokyo arriving there
about 7.15 P.M.

at the inn last night, the
mosquitoes were quite bad and
there was no netting so we all
got more or less bites.

Wednesday, July 10, 1929,
Tokyo, Japan. Worked at the
room on list of plant material
collected the 8 and 9 in Takao-
yama Forest region. Worked on
cards of herbarium and seed
material collected since
arrival in Japan. Went to office
in the afternoon and mailed
Nos. 19, 18, 14, and 20 spools of
Orvery camera film. Visited
the Japan Agr. Society in the
Sankaido Bldg, and met Mr.
who is Mr. Sanyetake's
old professor and is general
secretary of the association. We
gave bulletins on pea and
bean production in Japan.
Also promised a bulletin
published on Green manure
crops of Japan.

Worked on Bulletin by Association
with Mr. Sanyetake with
regard to soybean production
in Japan and also the uses
of the crop.

When we came back to the
hotel, along the street where
we usually go to the

Sankaido Bldg. There was
some sort of celebration or
festival going on at a shrine. Stands
were erected all along the street
and they were selling about
everything. Going further along
we found other side of street for a
considerable distance devoted to
plant stands. They were selling
all sorts of flowering plants, shrubs,
trees, bulbs and roots. Many
were selling gravel, sand, and
soil for pots and other dishes
for flowers.

At night we again visited these
streets and found the stands
selling roasted peas, beans,
and chestnuts, singing insects,
turtles, goldfish of many kinds,
frogs, china ware, combs, silks,
writing paper, etc. In fact about
anything a big store would
sell. It was some sort of
festival day at the Temple
which is near the Sankaido
Bldg. The streets were thronged
with people at night and
the sale in flowers, plants

and trees was quite brisk.

Paid in postage for parcels.

Motion picture films — 1.06

Plant material 1.58

Thursday, July 11, 1929.

Tokyo.

Motion picture

0-12 - Showing bundles of green soybeans in general market

12-26 - Showing close-up of man holding bundle of soybeans used as green vegetable beans.

26-40 - View of cart load of soybean plants which are used for green vegetable beans. View in general market in Tokyo.

40-60 - Cultivating rice field by hand near

60-70 - Pulling soybean plants with green pods for market.

80-90 - Pulling leaves from soybean plants.

90-100 - Bundling soybean plants.

Left about 9.30 A. M. for general market to get samples of soybeans. In looking about the market the following were noticed:

Peaches - in small wooden boxes with layers of straw on bottom - 12 large fine peaches - 45 sen per box.

~~Ma~~ Surakuchii Tda to
Nishiarai - 28 sen each 56
Nishiarai to Asakusa¹⁸ - 36
Asakusa - a hotel 7 sen. - 14

Mining Akihabara
Surakuchii to Akihabara^{5 sen.} - 10
Ginza to Akihabara 14 sen. 28

Left about 1 p.m. for Nishiarai where we were advised that soybeans were extensively for green vegetable beans. We arrived about 2 P.M. and walked up the road a short distance and found that soybeans were grown quite extensively throughout this section.

In passing along we noticed the beans were grown in small

patches. All were grown in rows about two feet apart. Some of the patches had plants with the seed about $\frac{3}{4}$ developed and were being pulled for the market. Other patches the beans were about 3 ft high and not yet in bloom. Some patches were just in bloom.

It was also noticed that the beans were planted at different times to carry the product through the season. Some plantings were just coming through the ground, others a few inches high. In fact, we saw patches ranging from the plants just emerging to the plants with seed $\frac{1}{4}$ grown being pulled for market.

In several cases, soybeans were planted between rows of soybeans that is the first planting, two feet apart, was in bloom while the plants between the middles were later planted and about 6 in high.

In several patches of beans
lilies being grown for edible
bulbs were ~~being~~ planted between
the rows. In other cases some
kind of vegetable was being
grown between the rows.

We stopped at one farmhouse
and in the farm shed the farmer
and his wife were pulling part
of the leaves from the bean plants.
The leaves were being pulled from
all the plants except the tops. The
plants were then packed in
small bundles containing
about 25 & 35 plants, stems
arranged so that the pods were
all on the outside, and a plant
or two in the middle doubled
up, apparently to allow
circulation of air and prevent
heating. His bundles had
the roots on the plants.

Going along further, it was
noticed that every farm had
several patches of beans in
different stages of maturity.
We saw two farmers pulling
beans. We were told by

several farmers, that the bean plants were pulled in the morning, taken to the shed and during the day were prepared for taking to the market the next morning.

This was quite evident as we passed along for we noticed the men and women in the farm yards, generally sitting in a shed picking the leaves from the plants and arranging them in bundles. We were fortunate enough, however, to find one farmer who was pulling beans. The plants were about 18-24 in. tall, of an early variety and had large pods with large beans, a large per cent with 3 seed to the pod. He pulled the plants here and there from the patch, being sure to have the plants of the same size and of the same maturity. As soon as he had an armful he took them to the yard

where in the shade he and his wife pulled the leaves from the bottom and middle of the plants, and then he arranged them on a small oblong box for bundling. We were able to take movies, although the light was bad, of the farmer picking the beans, the wife picking the leaves, the farmer bundling, the farmer holding one of the finished bundles, and the whole scene of leaf picking, bundling, and haul of the finished bundles.

As it started to sprinkle and was growing late we started for the electric station. On the way we saw a Japanese woman cleaning bundles of soy bean plants in the irrigation ditch. The bundles were being scrubbed with a large brush. We would like to have taken a picture but it was too late and just starting to rain. Moreover it is doubtful if we

could have shown the movie
back home for the women
were bare to the waist,

It was noticed that the
plants were all well circulated.
Large healthy nodules were
in abundance,

Recapit

Went especially to the
market to take some movie
scenes of the green vegetable
soybeans which are in great
abundance at the market.
We found the soybeans
everywhere. The plants were
in bundles and so arranged
that the pods - seed about
1/4 grown showed all around
and the leaves at the tops.
The entire plant with pods
had been pulled and roots
and all were included
except the middle leaves.
Movie scenes were taken
of a large number of bundles
on the outside of the market.
Two men holding the bundles
up, and a cart loaded

with bundles. We are advised that the whole plant is boiled in salt water and the pods removed and the beans eaten from the pods. Generally with beer or similar liquid refreshment.

In addition to the soy beans the following were noted.

Grapes - bunches of green grapes with leaves attached. We were told that on the 12, 13, and 14 of July were Japanese decoration days, these green grapes were used as offerings to Buddha.

Lily bulbs - edible. Small sun bulbs were in abundance and one in a white old bulb that had been packed in sawdust.

Ginger buds -

Cucumbers - small with blossoms on end.

Cucumbers - arranged in small grass or rush box.

Edible chrysanthemum flowers - yellow.

Squash - dark green with end stem and pointed seed.

Colocasia sp. roots.

Bamboo green string, done up in small bundles and tied with grass.

Palm small green - for Buddha's decoration.

Citrus aurantium - Small sprigs with leaves and fruits about the size of marbles.

Small bamboo baskets - with a green pear, a peach, a bunch of green grapes, *Citrus aurantium* sprigs which are used for Buddhist offerings.

Friday, July 12, 1929

Tokyo

Hot and clear. In the morning worked on soybean notes and also on record cards of herbarium cards and record books.

At lunch time we had Prof. Ukazaki of the Tokyo Agr. Coll. Mr. Sugiyake and Mr. Okami, a chemist and former student of Prof. Ukazaki in the U.S. for lunch. Ethel was given rather a large hand painting on silk by Prof. Ukazaki and Margaret was given a fan. After lunch worked on seed and herbarium notes and cards.

Saturday, July 13, 1929

Hot and clear. In the morning went to Consulate. Received check for April account and letters from Oakley and Lee.

Went to office and worked on seed and herbarium cards. In the afternoon developed a motion picture film of soybean scenes taken near

Nishiarai.

In the evening worked on seed notes and herbarium cards.

Sunday, July 14, 1929.

Cloudy and hot in the morning we went to the Ginza and tried to get some knickers but found that 35 is the largest size handled. We were unable to get any large enough to fit. Had lunch of pie a la mode (50 sen each) at a drug store near the Matsuya Department Store.

At one o'clock we left with Prof. Ukazaki, his little daughter (8 yrs) Mr. to visit the country home of Dr. Ukazaki in the Tokyo suburbs. He has about two acres of ground

Monday July 15, 1929.

Am. Nishirai - 9:10. Walked in the country to obtain pictures of soybean scenes. It was found that it was a holiday and bean plants for vegetable purposes were not being pulled or gotten ready for the market. We traveled through many villages and found many patches of beans all about. It is apparently a very extensive bean growing section, that is growing beans for vegetable purposes. In one case we found two women cultivating the beans with rather large tools. In all cases except two the patches of beans were clean but in the two cases the bean patches were very ready. In most patches the patches had two crops, that is the beans were grown in two foot rows and in between the rows were likes (early edible sort beginning to dry up), onions, but for the most part early and late varieties of beans or early beans with late planting. In many

patches the beans were ready to pull - the beans three-fourths grown - while in the row middles were taller plants of a later variety - the plants just in bloom.

Samples of soil were taken from two bean patches to test for acidity. It was noticed in the cultivation that the soil was drawn up to the plants in the rows, making them on ridges 4 to 6 inches higher than the middle of the rows.

Returned to Surakapostan about 5 P.M.

Left Takenotsuka, at 8.40 P.M.

Tuesday, July 16, 1929.

In the morning went to office and worked on herbarium material until lunch time. After lunch worked on herbarium cards and material collected yesterday. Our way home about 4 o'clock stopped at a small bean seed place where they had large blocks of bean

curd in rats and tubs of water.
Water was constantly running in
these tubs. Typed accounts of
deduction for resubmitting to
Cox.

Wednesday, July 17, 1929.

Cabbage & soy

Left Chirakuchie Sta. at 8.30 A.M.
for market where we arrived
at 8.40 A.M. Akihabara Sta. which
is market station. Left Akihabara
Sta. at 9.30 for Hama Sta. Left
Hama Sta. on train Kitasenju Sta.
where there is vegetable market and
there is an agricultural society.
Left Kitasenju 12.30 and
Arrived Takenotuka 12.15

Left Takenotuka 7.30

Arr. Tokyo. 5.30 P.M. Iwakuchō
at Kitasenju we found from the
Agr. Society that a village fair
was being held and that this
was the last day. The judging
had been done yesterday and
the prize awarding ceremony
was to take place this

afternoon. The fair was being held in the grade school buildings - the flowers and vegetable shown in one building and the children's exhibits of different grades in another building.

There was a great variety of vegetable and flowers shown. List is given in another book. The soy bean exhibit was an excellent one and we were fortunate enough to have the prize winning bundles brought outside and the winner of the special soy bean prize and the winner of the first prize pose for photographs, and movies also were taken of them. After taking the movies we went to a farm home where a farmer was preparing his bundles of beans for market.

- July 13, 1929 - Nishiarai
- 0-10 - Shown, insects picking
seed of *Asiaticus* sp.
- 10-22 - Cultivating soybeans
which are Shiozaki -
grown for vegetable bean.
- 22-32 - Don't digging edible wild bulbs
in Japanese farm patch.
- 32-40 - Shown two crops of soybean
soybeans on same land.
One nearly a full for green
beans and the other just in flower.
- 40-53 - *Hueshima-mura*. Japan.
- 42-53 - Water wheel used in irrigating
rice field - water being pumped
from ditch to another ditch
by foot power.
- 53-63 - Bean curd for sale in village
of Okomura. Bean is kept in bucket
of cold water. People come with
plate.
- 63-75 - Scene of Japanese women tying
cucumber vines to
bamboo.
- 75-83 - Distributing liquid light soil
over rice paddy.
- 83-92 - Shown bundles of soybeans in
market for green vegetable purposes.
- 92-100 - Shown close up of bundles of soybeans.

Spot 4. Kofu. 6/29/29

- 0-8-48 - Plowing under soybeans
in rice paddy for green manure
8-22 - Turning under soybeans
by hand in rice paddy. ^{Shizaki}
22-34 - Threshing with foot power ^{Shizaki}
near Shizaki. 6/30/29
34-45 - Planting rice near
Shizaki 6/30/29
45-57 - Farming wheat with small
basket and wind -
57-65 - Binding up wheat with
mallet.
64-75 - Plowing under soybeans
in dry rice paddy.
75-90 - Threshing scene showing
mallet and foot power thrasher
threshing up wheat.
90-100 - Close up of a paddy of
soybean crops turned under
for green manure.

Soybean - Green vegetable beans.
Price farmer receives for bundle
No. of plants per bundle.
Price in market per bundle,
Soil samples from bean patches

Spool - Kodak No.

Shot 1 - 12 ft. showing Japanese woman riding on a joy-disc harrow cutting up a plowed rice field. 6/29/29

Shot 2 - (12-28) - Panorama with P. H. sound showing cherry tree over 1500 years old near Yamadake Japan. 6/29/29

Shot 3 (28-42) showing close up of cherry tree (1500 years old) being measured (34 ft. 7 in in circumference)

Shot 4 (42-58) - Turning under soybeans in rice paddy for green manure. 6/29/29 near Yamadake. Japan

Shot 5 (58-68 ft) - Turning under soybeans for green manure

Shot 6 (70-90) - Cutting wheat between rows of which are soybeans to be turned under in rice paddy for green manure.

Shot 7 (90-100) -

- Jissaji Temple

2nd Aug

8 35 - Scattering branches
8 leaves in rice paddy
3rd shot 35 - 45

main bird backbone of branches
4th shot - 45 - 55 ft. cross titles
5th " - 55 - 70 - 2 in



Standard Memorandum Book

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